

ANNUAL REGISTER

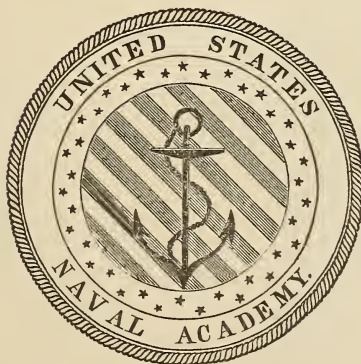
OF THE

UNITED STATES NAVAL ACADEMY,

ANNAPOLIS, MD.

THIRTY-FOURTH ACADEMIC YEAR.

1883-84.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.

1883.

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THE UNITED STATES NAVAL ACADEMY.

The United States Naval Academy was founded in 1845, by Hon. George Bancroft, Secretary of the Navy, in the administration of President James K. Polk. It was formally opened October 10, of that year, under the name of the Naval School, with Commander Franklin Buchanan as Superintendent. It was placed at Annapolis, Md., on the land occupied by Fort Severn, which was given up by the War Department for the purpose. The course was fixed at five years, of which the first and last only were spent at the School, the intervening three being passed at sea. This arrangement was not strictly adhered to, the exigencies of the service making it necessary, in many cases, to shorten the period of study. In January, 1846, four months after the opening of the School, the students consisted of 36 Midshipmen, of the date of 1840, who were preparing for the examination for promotion; 13 of the date of 1841, who were to remain until drafted for service at sea; and 7 Acting Midshipmen, appointed since September of the previous year. The Midshipmen of the date of 1840 were the first to be graduated, finishing their limited course in July, 1846, and they were followed in order by the subsequent dates, until the reorganization of the School, in 1851.

In September, 1849, a Board was appointed to revise the plan and regulations of the Naval School. The Board was composed of the following officers:

Commander William B. Shubrick,
Commander Franklin Buchanan,
Commander Samuel F. Dupont,
Commander George P. Upshur,
Surgeon W. S. W. Ruschenberger,
Professor William Chauvenet,
Captain Henry Brewerton, U. S. A.

The plan reported by the Board was approved, and went into operation July 1, 1850.

The new organization provided for a course of seven years, the first two and last two at the School and the three intermediate years at sea. The School was placed under the supervision of the Bureau of Ordnance and Hydrography, and its name was changed to the United States Naval Academy. The corps of professors was enlarged, the course was extended, and the system of separate departments, with executive heads, was fully adopted. It was provided that a Board of Visitors should make an annual inspection of the Academy, and report upon its condition to the Secretary of the Navy. A suitable vessel was attached to the Academy as a practice-ship, and the annual practice-cruises were begun.

After the system had been in operation a year new changes were proposed, and the recommendations of the Academic Board on the subject were referred to the Board of Examiners of the year 1851, composed of the following officers:

Commodore David Conner,
Captain Samuel L. Breese,
Commander C. K. Stribling,
Commander A. Bigelow,
Commander Franklin Buchanan,
Lieutenant Thomas T. Craven.

The change recommended by the Board of Examiners, and adopted by the Department, consisted mainly in leaving out the requirement of three years of sea-service in

the middle of the course, thus making the four years of study consecutive. The practice-cruise supplied the place of the omitted sea-service, and gave better opportunities of training. The change went into operation in November, 1851, together with other improvements recommended by the Board. The system has continued, with slight modifications, to the present time. The first class to receive the benefit of it was that which entered in 1851. Six members of this class completed the course in three years, and were graduated in June, 1854; the rest of the class followed in 1855.

In May, 1861, on the outbreak of the war, the Academy was removed to Newport, R. I. The three upper classes were detached and ordered to sea, and the remaining Acting Midshipmen were quartered in the Atlantic House and on board the frigates *Constitution* and *Santee*. In September, 1865, the Academy was moved back to Annapolis, where it has since remained.

When the Bureau of Navigation was established, July 5, 1862, the Academy was placed under its supervision; March 1, 1867, it was placed under the direct care and supervision of the Navy Department, the administrative routine and financial management being still conducted through the Bureau. On the 11th of March, 1869, all official connection with the Bureau came to an end.

The term of the academic course was changed by law, March 3, 1873, from four to six years. The change took effect with the class which entered in the following summer.

In 1866, a class of Acting Third Assistant Engineers was ordered to the Academy for instruction. The course embraced the subjects of steam engineering, mechanism, chemistry, and mechanics, and practical exercises with the steam engine and in the machine-shop. This class was graduated in June, 1868, together with two Cadet-Engineers who had entered the Academy in 1867. After an interval of four years, in October, 1871, a new class of Cadet-Engineers was admitted. This class followed a two years' course, somewhat more extended than that of the class of 1868, and was graduated in 1873. In 1872 and 1873 new classes were admitted, the first of which left the Academy in 1874 and the second in 1875. By an act of Congress approved February 24, 1874, the course of instruction for Cadet-Engineers was made four years instead of two; and the new provision was first applied to the class entering the Academy in the year 1874. This class was graduated in June, 1878.

By an act of Congress approved August 5, 1882, it is provided that from that date "there shall be no appointments of Cadet-Midshipmen or Cadet-Engineers at the Naval Academy, but in lieu thereof Naval Cadets shall be appointed from each Congressional district and at large, as now provided by law for Cadet-Midshipmen, and all the undergraduates at the Naval Academy shall thereafter be designated and called "Naval Cadets"; and from those who successfully complete the six years' course, appointments shall hereafter be made as it is necessary to fill vacancies in the lower grades of the Line and Engineer Corps of the Navy and of the Marine Corps: *And provided further*, That no greater number of appointments into these grades shall be made each year than shall equal the number of vacancies which has occurred in the same grades during the preceding year; such appointments to be made from the graduates of the year at the conclusion of their six years' course, in the order of merit, as determined by the Academic Board of the Naval Academy; the assignment to the various corps to be made by the Secretary of the Navy upon the recommendation of the Academic Board. But nothing herein contained shall reduce the number of appointments from such graduates below ten in each year, nor deprive of such appointment any graduate who may complete the six years' course during the year 1882. And if there be a surplus of graduates, those who do not receive such appointment shall be given a certificate of graduation, an honorable discharge, and one year's sea-pay, as now provided by law for Cadet-Midshipmen; and so much of section 1521 of the Revised Statutes as is inconsistent herewith is hereby repealed."

"That any Cadet whose position in his class entitles him to be retained in the service may, upon his own application, be honorably discharged at the end of four years' course at the Naval Academy, with a proper certificate of graduation."

SUPERINTENDENTS

OF THE

UNITED STATES NAVAL ACADEMY.

Assumed Command:

- Sept. 3, 1845.—Commander Franklin Buchanan.
- Mar. 15, 1847.—Commander George P. Upshur.
- July 1, 1850.—Commander Cornelius K. Stribling.
- Nov. 1, 1853.—Commander Louis M. Goldsborough.
- Sept. 15, 1857.—Captain George S. Blake.
- Sept. 9, 1865.—Rear-Admiral David D. Porter.
- Dec. 1, 1869.—Commodore John L. Worden.
- Sept. 22, 1874.—Rear-Admiral C. R. P. Rodgers.
- July 1, 1878.—Commodore Foxhall A. Parker.
- Aug. 2, 1879.—Rear-Admiral George B. Balch.
- June 13, 1881.—Rear-Admiral C. R. P. Rodgers.
- Nov. 14, 1881.—Captain F. M. Ramsay.

SEPTEMBER.							MARCH.						
Sun.	M.	T.	W.	T.	F.	Sat.	Sun.	M.	T.	W.	T.	F.	Sat.
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9	10	11	12	13	14	15	9	10	11	12	13	14	15
16	17	18	19	20	21	22	16	17	18	19	20	21	22
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30							30	31					
OCTOBER.							APRIL.						
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NOVEMBER.							MAY.						
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11	12	13	14	15	16	17	11	12	13	14	15	16	17
18	19	20	21	22	23	24	18	19	20	21	22	23	24
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16	17	18	19	20	21	22	22	23	24	25	26	27	28
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30	31												
JANUARY.							SEPTEMBER.						
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27	28	29	30	31			28	29	30				
FEBRUARY.							OCTOBER.						
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10	11	12	13	14	15	16	12	13	14	15	16	17	18
17	18	19	20	21	22	23	19	20	21	22	23	24	25
24	25	26	27	28	29		26	27	28	29	30	31	

OFFICERS
ATTACHED TO THE
UNITED STATES NAVAL ACADEMY.

SUPERINTENDENT,
CAPTAIN F. M. RAMSAY.

Assistant to the Superintendent, and in charge of Buildings and Grounds
LIEUTENANT W. T. BURWELL.

Commandant of Cadets,
COMMANDER N. H. FARQUHAR.

Assistants to the Commandant of Cadets,
LIEUTENANT H. N. MANNEY,
LIEUTENANT E. H. GHEEN,
LIEUTENANT W. P. POTTER,
LIEUTENANT THEODORIC PORTER.

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Assistants,
LIEUTENANT-COMMANDER H. ELMER,
LIEUTENANT N. T. HOUSTON,
LIEUTENANT A. C. DILLINGHAM,
LIEUTENANT C. D. GALLOWAY.

Instructor in Boxing, Swimming, and Gymnastics,
MATTHEW STROHM.

ORDNANCE AND GUNNERY.

Head of Department,
COMMANDER C. L. HUNTINGTON.

Assistants,
LIEUTENANT J. F. MEIGS,
LIEUTENANT R. R. INGERSOLL,
LIEUTENANT D. KENNEDY,
LIEUTENANT J. H. BULL.

Sword-Master,
ANTOINE J. CORBESIER.

Assistant Sword-Masters,
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GEORGE HEINTZ.

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Assistants,

LIEUTENANT J. G. EATON,
LIEUTENANT A. ROSS,
LIEUTENANT R. G. PECK.

STEAM-ENGINEERING.

Head of Department,

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Assistants,

PASSED ASSISTANT ENGINEER J. K. BARTON,
ASSISTANT ENGINEER W. M. PARKS,
ASSISTANT ENGINEER W. R. KING,
ASSISTANT ENGINEER G. H. T. BABBITT.

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Assistants.

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ENSIGN W. F. FULLAM,
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LIEUTENANT F. H. HOLMES,
PROFESSOR N. M. TERRY, A. M., PH. D.,
PROFESSOR C. E. MUNROE, S. B.

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Head of Department,

PROFESSOR W. W. HENDRICKSON.

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LIEUTENANT J. P. MERRELL,
LIEUTENANT H. O. RITTENHOUSE,
LIEUTENANT J. C. CRESAP,
LIEUTENANT T. B. HOWARD,
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LIEUTENANT R. T. JASPER,
LIEUTENANT J. B. BRIGGS,
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LIEUTENANT W. H. TURNER,
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PROFESSOR W. W. FAY, A. M.

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LIEUTENANT-COMMANDER J. SCHOULER.

Assistants.

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 ASSISTANT PROFESSOR E. DOVILLIERS,
 ASSISTANT PROFESSOR J. LEROUX,
 ASSISTANT PROFESSOR H. DALMON.

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Assistants.

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 PROFESSOR M. OLIVER,
 PASSED ASSISTANT ENGINEER A. B. CANAGA,
 ASSISTANT PROFESSOR C. F. BLAUVELT.

OFFICERS NOT ATTACHED TO THE ACADEMIC STAFF.

LIEUTENANT-COMMANDER C. M. THOMAS, *In charge of Ships.*
 SURGEON T. C. WALTON, M. D.
 PASSED ASSISTANT SURGEON D. N. BERTOLETTE, M. D.
 PASSED ASSISTANT SURGEON W. A. McCLURG, M. D.
 PAY INSPECTOR L. G. BILLINGS, *Commissary.*
 PAYMASTER R. W. ALLEN, *Pay Officer and Storekeeper.*
 CHAPLAIN A. A. McALISTER.
 ASSISTANT PROFESSOR THOMAS KARNEY, A. M., *Librarian.*
 J. J. GRAFF, *Assistant Librarian.*
 R. M. CHASE, *Secretary.*

Attached to the Ships.

BOATSWAIN A. M. POMEROY,
 GUNNER ROBERT SOMMERS,
 CARPENTER G. W. CONOVER.

MATES.

Attached to the Santee, the Dale, and the Phlox.

SAMUEL GEE,
 JAMES HILL,
 C. J. MURPHY,

B. G. PERRY,
 JOSEPH ROGERS,
 ROBERT SILVER,

W. G. SMITH.

MARINE OFFICERS.

CAPTAIN McLANE TILTON, *Commanding Marines.*
 FIRST LIEUTENANT S. H. GIBSON.
 FIRST LIEUTENANT G. T. BATES.

ACADEMIC BOARD.

THE SUPERINTENDENT.

THE COMMANDANT OF CADETS.

THE HEAD OF THE DEPARTMENT OF SEAMANSHIP, NAVAL TACTICS AND NAVAL CONSTRUCTION.

THE HEAD OF THE DEPARTMENT OF ORDNANCE AND GUNNERY.

THE HEAD OF THE DEPARTMENT OF ASTRONOMY, NAVIGATION AND SURVEYING.

THE HEAD OF THE DEPARTMENT OF STEAM ENGINEERING.

THE HEAD OF THE DEPARTMENT OF MECHANICS AND APPLIED MATHEMATICS.

THE HEAD OF THE DEPARTMENT OF PHYSICS AND CHEMISTRY.

THE HEAD OF THE DEPARTMENT OF MATHEMATICS.

THE HEAD OF THE DEPARTMENT OF ENGLISH STUDIES, HISTORY AND LAW.

THE HEAD OF THE DEPARTMENT OF MODERN LANGUAGES.

THE HEAD OF THE DEPARTMENT OF MECHANICAL DRAWING.

CADET OFFICERS.

CADET-LIEUTENANT-COMMANDER.

C. H. HEWES.

CADET-LIEUTENANTS.

T. H. LEARY.

H. A. FIELD.

C. W. HAZELTINE.

W. B. HOGGATT.

CADET-MASTERS.

I. K. SEYMOUR.

R. WELLES, JR.

D. F. TERRELL.

W. L. CAPPS.

CADET-ENSIGNS.

W. McCREARY.

W. R. SHOEMAKER.

W. O. HULME.

C. S. WILLIAMS.

H. McNULTA.

Cadet-petty-officers of the first class.

C. M. Knepper.

J. D. McDonald.

P. O. Keilholtz.

F. E. Curtis.

H. W. Jones.

J. R. Harrell.

R. L. Werntz.

A. C. Mathews.

H. E. Parmenter.

L. H. Jastremski.

D. W. Taylor.

N. S. Moseley.

Cadet-petty-officers of the second class.

J. G. Tawresey.

A. Rust.

W. McKay.

W. W. Gilmer.

J. P. McGuinness.

H. A. Bispham.

T. C. Fenton.

B. Wright.

W. W. Joynes.

D. S. Nes.

G. R. Slocum.

L. D. Ferriss.

PRACTICE CRUISE.

INSTRUCTIONS FOR ROUTINE AND EXERCISE DURING PRACTICE CRUISE.

U. S. NAVAL ACADEMY, *Annapolis, Md.*, June 1, 1883.

The prescribed routine must be followed as nearly as the weather, other circumstances, and the proficiency of the Cadets will permit.

The Cadets, except those performing the duties of Midshipmen shall be watched and stationed with the crew, alternating as far as practicable with the men in the numbers of the watch bill, and shall perform the duties of petty officers, seamen, ordinary seamen and boys, but shall not be required to clean ship.

The Cadets of the first class shall be divided into two parts and shall be detailed alternately, week and week, to perform the duties of Midshipmen and petty officers. Cadets detailed as Midshipmen shall be in three watches, and shall perform the same duties that will be required of them in cruising vessels of war. Cadets detailed as Mates of decks, holds or hull shall serve as such for one week. Two cutters of each vessel shall be manned by Cadets.

The watches shall always be called as the bell strikes, and not more than five minutes shall be allowed for relieving.

Exercises at night quarters shall take place once a month, and if at sea the guns shall be fired with blank charges as soon as ready, but guns must not be fired in port for exercise at night.

Advantage must be taken of every opportunity to impart professional knowledge to the Cadets, particularly to the first class.

When the ships are in ports where there is a navy-yard, frequent visits to the yard must be made by the Cadets of the first class under charge of proper officers. These officers must endeavor to visit every dock, building, shop, etc., in the yard, and explain to the Cadets everything connected with their uses, where and how the outfits and stores of ships are kept, and how they are obtained and transported.

Cadets of the first class shall be required to keep journals and navigation books; the journals must be exact copies of the ship's log and shall also contain detailed reports of visits to navy-yards and other places of professional interest, with sketches of headlands, harbors, etc.; the navigation books must contain all the work of the Cadets and be indexed daily to show the work of the day.

The journals must be examined weekly and the navigation books daily.

During the Practice Cruise, which is an important part of the course of instruction for Cadets, leave of absence must not be granted by Commanding Officers, except in cases of great emergency.

When in port Cadets may be granted leave to go on shore in the afternoons and evenings only.

ROUTINE EXERCISES FOR PRACTICE SHIPS AT SEA.

Monday, a. m.—Clear ship for action; general quarters, target practice.

Monday, p. m.—Knotting or splicing or fitting rigging or making up sails or reefing gear, or marking or use of log lines, or marking or use of lead line, or signals, Navy Myer's code, etc.

Monday, sunset.—Evolutions—then reef down.

Tuesday, a. m.—Rifles, pistols, single sticks.

Tuesday, p. m.—Same as Monday.

Tuesday, sunset.—Same as Monday.

Wednesday, a. m.—Sails or spars.

Wednesday, p. m.—Same as Monday.

Wednesday, sunset.—Same as Monday.

Thursday, a. m.—Great Guns, Navigator's division and Powder division.

Thursday, p. m.—Boats or abandon ship.

Thursday, sunset.—Same as Monday.

Friday, a. m.—Sails or spars.

Friday, p. m.—Five quarters.

Friday, sunset.—Same as Monday.

Friday, 7.30 p. m. (or dark).—Night signals.

Saturday and Sunday.—As per General Routine.

DAILY ROUTINE OF PRACTICE SHIPS AT SEA.

Daylight. Call in night look-outs, send aloft mast-head look-outs.

5.00 a. m. Call idlers, make sail as ordered.

7.00 a. m. Call all hands, pipe up all hammocks.

7.30 a. m. Pipe watch below to breakfast; shift into dress for the day.

8.00 a. m. Pipe watch on deck to breakfast.

8.30 a. m. Turn to, clean all bright work.

8.45 a. m. Sick call.

9.00 a. m. Clear up decks for inspection.

9.30 a. m. Quarters for inspection and forenoon exercise.

11.30 a. m. Pipe down wash clothes, clear up decks.

12.00 m. Pipe watch below to dinner.

12.30 p. m. Pipe watch on deck to dinner.

1.00 p. m. Turn to, clear up decks.

2.00 p. m. Afternoon instruction.

4.30 p. m. Clear up decks.

5.00 p. m. Pipe watch below to supper.

5.30 p. m. Pipe watch on deck to supper.

6.00 p. m. Turn to, clear up decks.

Half hour before sunset.—Evening exercise.

Sunset.—Quarters for inspection.

Pipe down hammocks.

Station night look-outs.

DAILY ROUTINE OF PRACTICE SHIPS IN PORT.

7.00 a. m. Pipe up all hammocks.

7.20 a. m. Clear up decks.

8.00 a. m. Routine evolution; pipe to breakfast; shift into dress for the day.

8.45 a. m. Sick call.

9.00 a. m. Turn to, clean all bright work, clear up decks for inspection, square yards, lower boats.

9.30 a. m. Quarters for inspection, forenoon exercises.

11.30 a. m. Pipe down wash clothes, clear up decks.

12.00 m. Pipe to dinner.

1.00 p. m. Turn to, clear up decks.

5.00 p. m. Clear up decks.

5.30 p. m. Pipe to supper.

5.30 p. m. Pipe watch on deck to supper.

6.00 p. m. Turn to, clear up decks.

Sunset.—Color evolution, quarters for inspection, up boats, down hammocks.

9.00 p. m. Tattoo, pipe down, set anchor watch.

Signals must be answered as soon as understood.

There will be no "ready men" for spar or sail exercises.

When the sails are bent the gear must be bent.

When topgallant and royal yards are in the rigging with sails bent, the clews of the sails must be out and stopped to the quarter-block eyebolts.

During sail exercises, the captains of tops, topgallant and royal yard men, *but no other men*, may remain aloft. Except while an evolution is in progress, these men must be *in the tops*, inside the topmast rigging. No evolution will be complete while a man is above the top.

When evolutions are completed, lay down on deck at once, without reference to the flag-ship.

Men will not be allowed aloft without signal, except in the morning watch.

All evolutions must be properly executed, and must not be hurried through to make good time. Extra gear for completing evolutions rapidly is strictly forbidden.

The position pennant under a vessel's pennant will mean that the evolution is *not* properly performed by that vessel.

The meal pennant will be shown when the men are at their meals, without reference to the flag-ship.

When no dress signal is made, the uniform of the day will be blue.

ROUTINE COLOR EVOLUTIONS IN PORT.

Monday, 8 a. m.—Loose sails to buntlines.

Monday, sunset.—Send down topgallant yards.

Tuesday, 8 a. m.—Cross topgallant yards.

Tuesday, sunset.—Send down topgallant yards; bend light sails.

Wednesday, 8 a. m.—Cross topgallant and royal yards.

Wednesday, sunset.—Send down topgallant and royal yards.

Thursday, 8 a. m.—Cross topgallant and royal yards, loose sails to bowline.

Thursday, sunset.—Send down topgallant and royal yards and topgallant mast, unbend light sails.

Friday, 8 a. m.—Send up topgallant masts, cross topgallant and royal yards.

Friday, sunset.—Send down royal yards.

GENERAL ROUTINE.

Monday (1st and 3d of each month).—Scrub hammocks, windsails, and boats' awnings.

Monday (2d and 4th of each month).—Scrub mattress covers.

Tuesday.—Scrub clothes.

Friday.—Scrub clothes and mess cloths.

Saturday.—Air bedding.

Scrub blankets at least once in three months.

First Sunday of each month.—General muster and Articles of War.

First Sunday of each quarter.—Full-dress muster.

Undress uniform for official visits will be worn by officers at other Sunday inspection and musters.

The Ordnance Instructions and the watch and station bills issued by the Bureau of Equipment and Recruiting shall be followed as nearly as practicable.

The regulations of the Navy must be strictly enforced on board the Practice ships and the ships must be conducted in accordance with the usages and customs of well regulated vessels of war.

F. M. RAMSAY,
Captain, Superintendent.

SUMMER CRUISE, 1883.

OFFICERS AND NAVAL CADETS.

UNITED STATES PRACTICE-SHIP CONSTELLATION.

COMMANDER N. H. FARQUHAR, *Commanding.*
LIEUTENANT-COMMANDER H. ELMER, *Executive Officer.*
LIEUTENANT J. P. MERRELL, *Navigators and Instructor in Navigation.*
LIEUTENANT R. G. PECK, *Watch Officer.*
LIEUTENANT A. MCCrackin, *Watch Officer.*
LIEUTENANT W. P. CLASON, *Watch Officer.*
LIEUTENANT C. D. GALLOWAY, *Watch Officer.*
LIEUTENANT F. H. HOLMES, *Assistant to Instructor in Navigation.*
PAY-INSPECTOR L. G. BILLINGS.
SURGEON W. J. SIMON.
ASSISTANT SURGEON O. DIEHL.
CHAPLAIN A. A. McALISTER.

NAVAL CADETS.

First Class.

Beecher, A. M.	Hulme, W. O.	Maxcy, J. W.
Bush, W. W., jr.	Johnston, W.	Mosely, N. S.
Field, H. A.	Jones, H. P., jr.	O'Malley, W. A.
Harrell, J. R.	Jones, H. W.	Orr, R. H.
Hazeltine, C. W.	Leary, T. H.	Parmenter, H. E.
Hewes, C. H.	Loomis, F. J.	Shoemaker, W. R.
Hill, F. K.	Macpherson, V.	Whittlesey, H. H.
Hoggatt, W. B.	Mathews, A. C.	Wirt, W. E.

Second Class.

Bispham, H. A.	Fenton, T. C.	Tawresey, J. G.
Boyd, H. L.	Kline, G. W.	Warfield, L. E.
Dieffenbach, A. C.	McKay, W.	Uberroth, P. H.
Evans, G. R.	Mulford, H. B.	

Third Class.

Andrews, P.	Dodd, W. L.	Strite, S. M.
Bertholf, E. P.	Edgar, W. A.	Tisdale, R. D.
Bird, C. B.	Hawkes, C. E.	Trapnell, B.
Breed, G.	Hines, H. K.	Tuggle, J. R.
Bullard, W. H. G.	Jacobs, B.	Webster, F. D.
Caldwell, C. L.	Johnson, E. V. D.	Winram, S. B.
Campbell, A.	Kress, F. N.	Witherspoon, E. T.
Cooper, G. F.	Moeller, F.	Young, D. M.
DeKrafft, J. C. P.	Reilly, G. B.	

Fourth Class.

Blackwood, N. J.	Eyre, W. P.	Potter, F.
Bonham, W. B.	Fitzgerald, G. W.	Rodgers, H. C.
Boughter, F.	Galloway, G. W.	Russell, F. M.
Bristol, M. L.	Guthrie, J. A.	Salter, J. C.
Burke, W. S.	Jacobs, J. L.	Scales, A. H.
Callaghan, W. C.	Jackson, R. H.	Stearns, B. W.
Carden, G. L.	Jewett, T. S.	Steber, B.
Cash, C. F.	Kochersperger, W. D.	Van Antwerp, W. C.
Cloke, W. S.	La Tourette, W. S.	Washington, T.
Cohen, A. R. W.	Long, A. T.	Waters, G.
Coleman, R.	McCully, N. A., jr.	Wells, B. W., jr.
Craig, C. S.	McGee, H. W.	Welsh, J. J.
Darby, S. E.	Moore, F. G.	Williams, W. H.
Davis, A. H.	O'Halloran, T. M.	Wilmer, W. R.
Decker, B. C.	Peckham, H. L.	Wiley, H. A.
Durell, E. H.		

UNITED STATES PRACTICE-SHIP DALE.

COMMANDER C. D. SIGSBEE, *Commanding.*
 LIEUTENANT H. KNOX, *Executive Officer.*
 LIEUTENANT D. KENNEDY, *Navigator and Instructor in Navigation.*
 LIEUTENANT W. H. TURNER, *Watch Officer.*
 LIEUTENANT J. H. BULL, *Watch Officer.*
 LIEUTENANT T. B. HOWARD, *Watch Officer.*
 ENSIGN H. C. GEARING, *Watch Officer.*
 ENSIGN W. F. FULLAM, *Assistant to Instructor in Navigation.*
 PAST ASSISTANT SURGEON W. A. MCCLURG.
 ASSISTANT PAYMASTER E. B. ROGERS.

NAVAL CADETS.

First Class.

Capps, W. L.	Knepper, C. M.	Richardson, T. R.
Crisp, R. O.	Lawrance, W. H.	Seymour, I. K.
Curtis, F. E.	McCay, H. K.	Smith, S. F.
Davis, E.	McCreary, W.	Starr, J. B.
Fahs, C. M.	McDonald, J. D.	Terrell, D. F.
Hayes, C. H.	McKean, J. S.	Welles, R., jr.
Jastremski, L. H.	McNulta, H.	Wernitz, R. L.
Keilholtz, P. O.	Plunkett, C. P.	Williams, C. S.

Second Class.

Bootes, J. T.	McCormick, C. M.	Strauss, J.
Chase, V. O.	Miller, W. G.	Taylor, D. W.
Dashiell, J. M.	Rust, A.	
Joynes, W. W.	Stanworth, C. S.	

Third Class.

Berry, J. G.	Hall, C. L.	Oman, J. W.
Billings, C. C.	Hawk, G. F.	Parker, F.
Caldwell, W. H.	Jenkins, F. W.	Rumsey, H. E.
Foust, W. H.	Levis, F. A.	Stearns, J. W.
Griswold, J. N.	McMillan, J. T.	

Fourth Class.

Alexander, J. N.
Brown, F. H.
Bryan, H. F.
Childs, H. L.

Craig, C. C.
Edmonds, S. P.
Johnston, C. E.
Kelly, F.

Moale, E., jr.
Murray, W. J.

*SYNOPSIS OF THE CRUISE.**CONSTELLATION.*

Commissioned May 15. Cadets embarked June 11.

On June 16, sailed from Annapolis, beat down the bay, and went to sea June 25.

On July 1, ran into Delaware Breakwater to land an invalid. Arrived at Portsmouth, N. H., July 17.

Sailed from Portsmouth July 31, and arrived in Chesapeake Bay August 11, and at Annapolis August 28.

DALE.

Commissioned May 26. Cadets embarked June 11.

On July 16, sailed from Annapolis, beat down the bay, and went to sea June 25.

Arrived at Portsmouth, N. H., July 16. Remained at anchor in the lower harbor until July 21, when the ship was towed to the navy-yard, where a number of minor repairs were made.

Sailed from Portsmouth August 1, and arrived in Chesapeake Bay August 13, and at Annapolis August 28.

Order of general merit.	Name.	State.	Date of admission.	Age at date of admission.	
				Years.	Months.
*1	Greene, Samuel Dana, jr	Rhode Island	June 18, 1879	14	7
*2	Street, George Washington	Wisconsin	Sept. 22, 1879	16	7
*3	Armistead, Samuel Wilson	Virginia	Oct. 1, 1879	18	0
*4	Baxter, William Joseph	Ohio	Oct. 1, 1879	20	11
*5	Eaton, Charles Phillips	Wisconsin	Oct. 1, 1879	16	4
6	Jackson, John Brinckerhoff	New Jersey	Sept. 22, 1879	17	1
7	Littlehales, George Washington	Pennsylvania	Oct. 1, 1879	18	11
8	Dyson, Charles Wilson	Pennsylvania	Oct. 1, 1879	17	9
9	Ellicott, John Morris	Maryland	Oct. 1, 1879	20	0
10	Barkley, Richard Warren	Missouri	June 19, 1875	16	3
11	Darrah, William Francis	Rhode Island	Oct. 1, 1879	17	1
12	Sweeting, Charles Edward	New York	Sept. 22, 1879	17	11
13	Keith, Albion Sherman	Massachusetts	Sept. 22, 1879	16	5
14	George, Harry	Michigan	June 11, 1879	16	1
15	Thurston, Benjamin Easton	Indiana	Sept. 22, 1879	15	5
16	Halstead, Alexander Seaman	Pennsylvania	Oct. 1, 1879	17	9
17	Chapin, Frederick Lincoln	Illinois	Sept. 22, 1879	16	3
18	Alexander, Robert Calder	Kentucky	Sept. 22, 1879	16	2
19	Herbert, William Cromwell	Pennsylvania	Oct. 1, 1879	15	6
20	Field, Harry Ashby	Virginia	Oct. 1, 1879	17	2
21	Webster, Charles Franklin	Pennsylvania	Oct. 1, 1879	17	8
22	Gignilliat, Thomas Heywood	Georgia	Sept. 23, 1878	15	7
23	Agee, Alfred Pelham	Alabama	June 11, 1879	16	10
24	Witherspoon, Thomas Alfred	Tennessee	June 11, 1879	17	2
25	Frazier, Robert Thomas	Tennessee	Sept. 23, 1879	16	4
26	Stout, George Clymer	Pennsylvania	Sept. 22, 1879	17	2
27	Mitchell, Sydney Zollicoffer	Alabama	Sept. 23, 1878	16	6
28	Balthis, Harry Hamilton	Illinois	June 11, 1879	17	8
29	Toney, Temlet Vivian	Illinois	June 11, 1879	17	8
30	Colvin, Frank Reginald	New York	Sept. 22, 1879	17	2
31	O'Leary, Timothy Stephen	Massachusetts	Sept. 22, 1879	18	0
32	Philbin, Patrick Henry	Maryland	June 21, 1878	17	8
33	Lerch, Robert Lee	Ohio	Sept. 22, 1879	16	3
34	Woods, Robert Harris	Virginia	Sept. 23, 1878	17	10
35	Palmer, James Edward	North Carolina	Oct. 1, 1879	18	3
36	Pettit, Harry Corbin	Indiana	Sept. 22, 1879	15	10
37	Weeks, Edwin Babbitt	Oregon	Sept. 23, 1878	15	3
38	Shook, Thomas Alexander Wharton	Maryland	Oct. 1, 1878	18	4
39	Schrader, George Morrison von	Missouri	Sept. 23, 1878	16	5
40	Ledbetter, William Hamilton	Texas	Sept. 22, 1879	17	8
41	Wilson, William Joseph	Ohio	Sept. 22, 1879	17	11
42	Legaré, Alexander Brown	South Carolina	Mar. 20, 1878	18	0
43	Gray, Willie Theodore	North Carolina	May 8, 1878	18	0
44	Ryan, Philip Joseph	New York	Oct. 1, 1879	19	11
45	Glascock, Eustace Straughn	Maryland	Oct. 1, 1879	16	6

CADETS.
46 members.

Order of merit in—											Demerits.	Sea-service in practice- ships.		Order of general merit.
Seamanship.	Ship-building.	Gunnery.	Marine engines.	Theory of navigation.	Practical navigation.	Electricity.	Physical measurements.	Naval architecture.	International law.	Spanish.		Months.	Days.	
1	5	1	12	2	3	2	4	1	1	2	69	7	5	*1
2	31	2	14	1	1	2	13	2	3	10	49	7	5	*2
19	1	2	4	8	4	5	8	3	7	8	10	6	11	*3
42	15	6	3	11	10	8	4	4	5	14	8	6	8	*4
45	23	10	8	3	13	1	1	7	16	4	9	6	8	5*
12	17	12	18	12	14	22	16	6	9	7	12	7	5	7
37	2	9	7	13	9	4	9	8	4	1	26	6	5	8
19	12	8	6	17	7	10	4	13	5	3	19	6	8	9
31	3	11	5	10	16	12	12	16	11	22	0	6	8	10
11	11	13	11	4	2	11	4	9	12	6	46	4	23	11
28	16	15	2	9	11	6	9	14	8	12	75	5	25	12
15	23	16	35	20	12	19	38	4	22	28	137	7	5	13
3	20	4	13	6	8	9	2	15	13	9	8	7	5	15
5	7	14	19	5	6	15	13	12	13	35	111	7	5	16
21	26	18	20	7	15	15	38	28	18	19	23	7	5	17
39	22	20	15	30	37	24	17	18	24	23	73	6	11	18
3	10	21	23	22	23	30	28	24	9	19	1	7	5	19
7	17	25	25	16	24	20	21	23	45	18	82	7	5	20
39	8	19	10	21	25	15	40	19	28	15	90	6	8	21
27	9	32	15	33	33	33	40	39	40	48	15	6	8	22
37	21	16	17	24	33	23	33	29	15	39	61	6	11	23
30	33	23	26	27	45	20	13	24	18	32	64	6	10	24
10	36	27	32	19	21	27	25	19	34	44	80	7	5	26
14	32	27	32	33	34	34	25	24	22	26	40	7	5	27
21	50	33	47	36	46	25	21	31	38	19	119	7	5	28
8	13	49	41	45	27	33	44	33	17	47	142	6	14	29
9	23	30	23	15	17	18	17	22	21	12	75	7	5	31
23	14	22	31	23	19	25	28	32	33	17	58	7	5	33
16	48	43	45	31	21	50	19	50	32	32	70	7	5	34
13	39	33	43	35	32	14	20	21	25	24	36	7	5	35
17	39	47	38	39	34	31	40	36	37	37	28	7	5	37
29	52	39	41	29	36	27	44	42	49	39	62	7	5	38
26	37	52	48	45	50	34	33	40	54	5	103	7	5	40
24	39	42	52	37	49	48	53	37	34	24	35	7	5	41
43	35	44	24	42	42	43	25	44	53	50	2	6	11	42
33	48	39	45	49	33	43	49	43	47	34	148	7	5	44
36	47	46	40	41	31	49	47	45	45	44	124	7	5	46
51	29	37	22	54	51	43	32	35	44	53	9	7	12	47
44	54	50	52	50	48	52	54	52	50	54	133	4	23	48
18	19	47	49	28	30	42	50	54	41	29	70	7	5	49
39	37	31	37	45	41	41	52	45	30	42	48	7	5	50
43	42	44	54	44	27	54	50	47	52	52	90	7	5	51
46	46	54	43	45	53	47	28	49	51	44	106	7	5	52
54	43	53	50	51	46	53	44	53	38	51	105	6	8	53
53	53	51	51	53	54	51	33	41	42	41	150	6	11	54

Order of annual merit.	Name.	State.	Date of admission.	Age at date of admission.	
				Years.	Months.
9	Beecher, Albert Morrison	Iowa	June 11, 1880	17	4
45	Bush, William Wirt, jr.	New York	Sept. 22, 1880	15	8
*3	Capps, Washington Lee	Virginia	Oct. 1, 1880	16	8
30	Crisp, Richard Owens	Maryland	Oct. 1, 1880	18	9
*5	Curtis, Frederic Ellsworth	Massachusetts	Sept. 22, 1880	17	8
44	Davis, Edward	Pennsylvania	Oct. 1, 1880	20	8
32	Fahs, Charles Marion	Alabama	Oct. 1, 1880	17	9
8	Field, Horace Almeron	New York	Oct. 1, 1880	19	3
39	Harrell, John Randolph	Louisiana	Sept. 22, 1880	16	7
35	Hayes, Charles Harold	Pennsylvania	Sept. 22, 1880	16	8
22	Hazeltine, Charles Walter	Missouri	June 11, 1880	17	2
*1	Hewes, Charles Hinman	Pennsylvania	Oct. 1, 1880	16	4
*6	Hill, Frank Kinsey	Ohio	Oct. 1, 1880	19	6
*4	Hoggatt, Wilford Bacon	Indiana	June 11, 1880	14	9
15	Hulme, Walter Oliphant	New Jersey	Oct. 1, 1880	20	10
29	Jastremski, Leon Henry	Louisiana	Sept. 22, 1879	14	11
41	Johnston, William	Mississippi	June 11, 1880	17	10
18	Jones, Hilary Pollard	Virginia	Sept. 22, 1880	16	10
26	Jones, Horace Walker	Virginia	Oct. 1, 1880	19	1
38	Keilholtz, Pierre Otis	Maryland	Oct. 1, 1880	18	5
*2	Knepper, Chester Mahlon	Pennsylvania	Oct. 1, 1880	18	9
42	Lawrance, William Hunter	Pennsylvania	Oct. 1, 1879	20	11
17	Leary, Thomas Horton	North Carolina ..	Sept. 22, 1880	16	11
20	Loomis, Frederick James	Connecticut	Oct. 1, 1880	18	0
33	Macpherson, Victor	Kentucky	Sept. 22, 1880	15	3
40	Mathews, Albert Clifton	Ohio	Oct. 1, 1880	18	10
25	Maxey, John Wharton	Texas	June 11, 1880	16	5
21	McCay, Henry Kent	Georgia	Oct. 1, 1880	20	5
31	McCreary, Wirt	Pennsylvania	June 11, 1879	17	1
15	McDonald, John Daniel	Nevada	Oct. 6, 1880	16	11
36	McKean, Josiah Slatts	Ohio	Sept. 22, 1879	15	3
11	McNulta, Herbert	Illinois	June 11, 1880	17	6
12	Moseley, Nathaniel Stockwell	California	Mar. 22, 1880	18	0
47	O'Malley, William Ambrose	Pennsylvania	Sept. 22, 1880	17	4
	Orr, Robert Hunter	Delaware	Oct. 1, 1880	20	0
14	Parmenter, Henry Earl	Rhode Island	Oct. 1, 1880	19	6
27	Plunkett, Charles Peshall	District Columbia	Sept. 30, 1879	15	7
43	Richardson, Thornton Russell	Pennsylvania	Oct. 1, 1880	20	1
24	Seymour, Isaac Knight	Maine	Sept. 22, 1880	17	6
23	Shoemaker, William Rawle	New Mexico	June 11, 1880	17	4
46	Smith, Sidney Fuller	Massachusetts	Sept. 22, 1880	16	11
37	Starr, John Burton	Kansas	Oct. 1, 1880	19	2
13	Terrell, Douglass Fuqua	Mississippi	Sept. 22, 1880	17	3
10	Welles, Roger, jr.	Connecticut	Sept. 22, 1880	17	9
28	Wentz, Robert Lincoln	Pennsylvania	Oct. 1, 1880	19	4
34	Whittlesey, Humes Houston	Indiana	Oct. 1, 1880	19	1
*7	Williams, Clarence Stewart	Ohio	Sept. 22, 1880	16	11
48	Wirt, William Edgar	Ohio	Sept. 22, 1880	17	9

CADETS.

48 members.

Order of merit in—											Number of demerits.	Sea-service in practice-ships.		Order of annual merit.
Seamanship.	Ship-building.	Ordnance and gunnery.	Marine engines.	Astronomy.	Chemistry.	Electricity.	Calculus.	Mechanics.	English and history.	International law.		Months.	Days.	
6	11	9	6	9	16	4	18	9	35	19	100	8	28	9
37	48	49	49	36	32	41	15	32	45	40	190	7	09	45
27	2	11	4	4	9	7	4	7	2	3	21	4	20	*3
46	42	30	34	44	36	28	13	10	32	39	95	4	20	30
20	6	7	7	9	4	10	3	3	7	8	78	7	09	*5
43	19	32	29	52	38	48	37	41	29	24	62	4	23	44
47	46	45	31	31	21	24	17	18	40	29	177	4	23	32
35	3	14	8	4	1	8	16	18	3	6	8	4	23	8
17	37	44	39	31	43	29	46	42	49	27	123	7	09	39
23	29	25	28	40	30	32	52	39	16	27	104	7	09	35
24	36	19	21	11	13	15	33	22	24	11	57	8	28	22
4	1	1	1	3	4	1	1	1	14	4	17	4	20	*1
22	6	6	3	2	3	9	9	6	29	17	68	4	23	*6
5	13	17	5	8	2	3	10	4	20	9	23	8	28	*4
31	19	9	15	12	24	17	11	24	7	22	36	4	20	15
26	50	50	41	40	28	14	20	13	20	41	141	8	28	29
24	33	31	42	46	34	44	39	31	37	48	91	7	09	41
10	15	16	27	15	20	26	25	11	11	13	108	5	29	18
40	8	38	23	28	35	35	12	42	7	34	52	4	23	26
38	41	42	29	45	40	32	35	32	11	42	77	4	20	38
18	5	2	2	1	7	2	2	2	15	2	107	4	20	*2
44	26	39	23	23	47	46	42	42	33	35	93	8	23	42
7	26	35	26	34	18	17	8	12	47	25	13	7	09	17
35	23	17	14	29	13	13	34	15	7	36	57	4	20	20
28	44	25	45	38	33	34	26	24	23	46	127	7	09	33
34	30	41	35	26	46	38	39	37	33	32	92	4	23	40
14	35	29	31	22	12	30	22	30	39	38	189	8	28	25
30	18	24	19	7	19	23	22	13	43	18	64	4	20	21
11	24	39	33	24	30	31	46	34	42	21	48	7	09	31
16	24	23	17	17	8	19	31	15	24	23	43	6	11	15
11	31	43	35	42	40	26	36	35	51	37	181	7	09	36
2	10	19	12	18	11	12	14	21	24	29	54	8	28	11
1	4	21	16	15	6	22	19	20	16	16	212	8	04	12
32	32	36	45	48	50	50	41	49	29	43	117	7	09	47
50	52	52	40	43	45	51	46	50	45	44	51	4	20	
14	19	12	13	19	27	15	22	17	5	31	62	4	23	14
8	38	46	37	33	39	35	6	38	24	46	188	7	09	27
33	22	34	47	38	44	45	32	42	50	44	41	3	07	43
20	15	28	21	30	21	20	29	35	35	14	22	7	09	24
18	19	5	25	19	36	43	30	23	4	14	45	8	28	23
42	44	22	44	24	24	40	43	42	47	26	116	7	09	46
45	47	15	33	35	40	25	44	42	11	9	39	4	20	37
29	28	8	8	14	15	6	37	27	20	7	16	7	09	13
8	11	3	10	21	26	11	7	5	19	33	31	7	09	10
52	40	27	18	37	29	37	26	24	16	12	28	4	20	23
47	33	37	48	27	23	38	28	28	24	20	49	4	20	34
3	14	3	11	13	9	5	5	8	5	5	26	7	09	*7
51	49	47	51	47	47	49	51	40	41	48	167	7	09	48

Order of annual merit.			
	Name.	State.	Date of admission.
11	Bispham, Harrison Augustus.....	Pennsylvania.....	Oct. 1, 1881
45	Bootes, James Thomas.....	Delaware.....	Oct. 1, 1881
26	Boyd, Harry Lansdale.....	Maryland.....	Oct. 1, 1881
33	Burnstine, Albert.....	Michigan.....	Sept. 22, 1881
9	Chase, Volney Ogle.....	Louisiana.....	Oct. 1, 1881
25	Coontz, Robert Edward.....	Missouri.....	Sept. 22, 1881
36	Corpening, Charles Macon.....	North Carolina.....	June 11, 1881
44	Dashiell, Julius Matthias.....	Maryland.....	Oct. 1, 1881
*3	Dieffenbach, Albert Christian.....	Pennsylvania.....	Oct. 1, 1881
32	Dutton, Arthur Henry.....	Indiana.....	Sept. 21, 1881
19	Eberle, Edward Walter.....	Arkansas.....	Sept. 22, 1881
27	Evans, George Robert.....	Massachusetts.....	Oct. 1, 1881
*4	Fenton, Theodore Cornell.....	Pennsylvania.....	Oct. 1, 1881
40	Ferris, Louis Duane.....	New York.....	Sept. 21, 1881
30	Friedlander, Harry.....	California.....	Sept. 22, 1880
29	Gilmer, William Wirt.....	Virginia.....	June 11, 1880
41	Howell, Robert Beecher.....	Michigan.....	Sept. 21, 1881
8	Joynes, Walker Waller.....	Tennessee.....	Oct. 1, 1881
16	Kittrell, James Wesson.....	Mississippi.....	Sept. 23, 1881
10	Kline, George Washington.....	New Jersey.....	Oct. 1, 1881
24	Lombard, Benjamin Mathews.....	Iowa.....	Sept. 21, 1881
34	McCormick, Charles Monod.....	Virginia.....	Oct. 1, 1881
18	McGuinness, John Patrick.....	Idaho Territory.....	Sept. 21, 1881
*2	McKay, William.....	Pennsylvania.....	Oct. 1, 1881
*6	Miller, William Gardner.....	Virginia.....	Oct. 1, 1881
39	Mulford, Harry Boone.....	New Jersey.....	Oct. 1, 1881
21	Nes, David Small.....	Pennsylvania.....	June 13, 1881
42	Pitner, Samuel Ellis.....	Tennessee.....	Sept. 22, 1881
23	Poe, Charles Carroll.....	Pennsylvania.....	Sept. 21, 1881
12	Russell, Robert Lee.....	Georgia.....	June 14, 1881
14	Rust, Armistead.....	Virginia.....	Oct. 1, 1881
31	Shindel, James Elliott.....	Pennsylvania.....	June 13, 1881
46	Shipley, Richard Trenton.....	Missouri.....	Feb. 3, 1881
20	Slade, Thomas Bog.....	Georgia.....	June 11, 1881
7	Slocum, George Ralph.....	Illinois.....	Sept. 22, 1881
13	Stanworth, Charles Semmes.....	Virginia.....	Oct. 1, 1881
15	Strauss, Joseph.....	Virginia.....	Oct. 1, 1881
28	Tarbox, Glennie.....	South Carolina.....	Sept. 22, 1881
*5	Tawresey, John Godwin.....	Delaware.....	Oct. 1, 1881
*1	Taylor, David Watson.....	Virginia.....	Oct. 1, 1881
35	Tennant, George Boyce.....	Michigan.....	Sept. 22, 1881
22	Thompson, Alexander.....	New York.....	Sept. 23, 1881
38	Uberroth, Preston Henry.....	Pennsylvania.....	Oct. 1, 1881
17	Warfield, Louis Edwin.....	Maryland.....	Oct. 1, 1881
37	Wright, Benjamin.....	Tennessee.....	Sept. 21, 1881

CADETS.

45 members.

Age at date of admission.		Order of merit in—								Sea-service in practice-ships.		Order of annual merit.
Years.	Months.	Seamanship.	Mathematics, first term.	Mathematics, second term.	Chemistry.	English and History.	French.	Drawing.	Number of demerits.	Months.	Days.	
16	8	15	14	15	8	12	13	8	28	2	12	11
17	10	48	41	43	39	44	44	23	209	2	12	45
18	11	44	22	24	39	29	16	12	25	2	12	26
17	0	25	29	29	34	41	22	33	229	2	6	33
20	2	16	10	10	14	7	15	11	87	2	12	9
17	3	37	23	24	28	11	17	36	25	2	6	25
16	5	41	35	27	21	36	21	43	169	2	6	36
19	11	44	43	34	45	41	41	42	236	2	12	44
18	9	7	2	3	4	10	4	7	54	2	12	*3
17	1	12	34	32	33	26	14	40	157	2	6	32
17	0	22	17	21	16	15	38	28	82	2	6	19
18	7	33	23	23	30	20	25	20	100	2	12	27
18	8	14	3	2	17	9	34	5	7	2	12	*4
17	3	42	40	36	41	34	36	40	170	2	6	40
17	11	32	12	26	26	35	38	48	219	4	17	30
17	0	1	36	35	25	45	36	16	24	4	17	29
17	8	23	42	44	35	22	46	29	189	2	6	41
19	1	9	8	12	6	4	9	10	18	2	12	8
17	6	10	25	18	10	13	6	31	99	2	6	16
17	9	34	6	5	20	37	46	17	17	2	12	10
14	9	24	37	16	11	16	31	24	219	2	6	24
19	6	28	25	46	36	37	44	9	67	2	12	34
17	0	19	19	19	23	19	12	25	66	2	6	18
16	9	3	3	4	1	1	2	4	27	2	12	*2
16	9	20	5	6	7	17	7	20	145	2	12	*6
19	1	42	39	42	42	22	27	18	29	2	12	39
15	11	5	33	30	24	32	27	1	70	2	6	21
17	3	36	45	40	30	48	34	35	77	2	6	42
17	9	27	17	22	32	31	5	26	187	2	6	23
16	7	18	16	13	11	6	8	39	47	2	6	12
19	3	30	13	14	11	21	32	14	25	2	12	14
17	8	26	27	30	26	18	27	38	120	2	6	31
16	2	21	47	41	36	39	48	47	245	2	6	46
17	11	8	27	16	29	28	41	12	79	2	6	20
17	0	6	9	8	9	5	10	19	83	2	6	7
17	2	39	11	9	19	22	18	20	177	2	12	13
19	10	46	15	11	18	27	22	6	78	2	12	15
17	7	2	21	37	21	30	18	32	241	2	6	28
19	8	3	7	7	3	3	40	2	9	2	12	*5
17	7	17	1	1	2	2	3	2	19	2	12	*1
17	9	30	29	27	45	33	18	30	230	2	6	35
17	0	11	32	32	5	8	32	27	73	2	6	22
18	11	35	29	39	38	39	43	36	84	2	12	38
17	3	39	20	20	15	14	27	14	85	1	12	17
16	2	28	37	33	44	22	24	33	82	2	6	37

Order of annual merit.	Name.	State.	Date of admission.
22	Andrews, Philip	New Jersey	Sept. 23, 1882
26	Berry, John Giveen.....	Maine	June 17, 1882
27	Billings, Cornelius Canfield.....	Vermont	Sept. 23, 1882
14	Breed, George.....	Kentucky	June 17, 1882
10	Bullard, William Hannum Grubb	Pennsylvania	Sept. 23, 1882
34	Caldwell, Chester Lawrence	New York.....	Sept. 23, 1882
11	Caldwell, William Howell.....	Tennessee.....	Sept. 23, 1882
17	Cooper, George Franklin	Georgia	June 17, 1882
†	De Krafft, John Charles Philip	Iowa	Feb. 8, 1881
7	Dodd, Willard Louis.....	Indiana	Sept. 23, 1882
†	Edgar, Webster Appleton.....	New York.....	Sept. 22, 1881
19	Foust, William Harry.....	Ohio	Sept. 23, 1882
28	Griswold, John Noble.....	Wisconsin.....	Sept. 30, 1882
35	Hall, Clinton Lincoln.....	Massachusetts.....	Sept. 23, 1882
9	Hawk, George Frederick.....	Pennsylvania	June 17, 1882
13	Hines, Harold Kemble.....	Kentucky	Oct. 2, 1882
†	Jacobs, Benjamin	Kansas	June 11, 1881
32	Jenkins, Friend William	Pennsylvania	Sept. 23, 1882
23	Johnson, Edwin Van Deusen.....	Indiana	June 17, 1882
*1	Kress, Frederic Norton.....	New York.....	Oct. 3, 1882
24	Levis, Francis Adelbert.....	New York.....	June 17, 1882
30	McMillan, John Taylor	California	June 17, 1882
6	Oman, Joseph Wallace.....	Pennsylvania	June 17, 1882
*3	Parker, Frederic.....	Massachusetts	Sept. 23, 1882
29	Reilly, George Brinton	Wisconsin	Aug. 23, 1882
25	Rumsey, Harry Edgerton.....	Wyoming	Sept. 23, 1882
16	Stearns, John Warren.....	New Hampshire	Sept. 23, 1881
5	Strite, Samuel Melchoir	Maryland	Sept. 23, 1882
4	Tisdale, Ryland Dillard.....	Kentucky.....	Sept. 23, 1882
36	Webster, Frank Daniel	Missouri	Sept. 23, 1882
37	Winram, Samuel Black.....	Missouri	June 17, 1882
8	Witherspoon, Edward Taylor.....	Connecticut	Sept. 23, 1882
21	Young, David May	Virginia	Sept. 30, 1882

†Turned back from present second class.

CADETS.

33 members.

Age at date of admission.		Order of merit in—					Sea-service in practice-ships.		Order of annual merit.
Years.	Months.	Mathematics.	English and history.	French.	Drawing.	Number of de-merits.	Months.	Days.	
16	6	16	23	27	15	40	2	12	22
16	4	23	25	14	22	137	4	18	26
17	9	24	39	25	9	64	2	12	27
17	11	11	13	20	7	120	4	18	14
15	10	9	7	23	12	51	2	12	10
17	5	34	37	39	6	52	2	12	34
17	9	7	18	22	25	64	2	12	11
17	9	26	9	9	40	20	4	18	17
16	9						2	6	†
17	3	10	4	13	5	78	2	12	7
17	5						2	6	†
17	11	22	15	17	1	46	2	12	19
17	0	20	27	41	22	230	2	12	28
17	6	35	36	34	27	127	2	12	35
18	0	5	10	37	17	77	4	18	9
15	9	15	5	21	27	54	2	12	13
16	9						2	6	†
17	3	27	40	17	26	261	2	12	32
16	9	11	22	37	45	122	4	18	23
15	9	1	2	3	14	34	2	12	*1
17	2	28	16	36	13	32	4	18	24
15	3	21	41	28	32	40	4	18	30
17	10	17	2	11	7	14	4	18	6
17	6	2	12	5	9	149	2	12	*3
17	11	37	23	29	37	21	2	12	29
16	7	18	26	25	17	266	2	12	25
15	3	32	21	4	2	191	4	18	16
16	4	4	11	17	20	38	2	12	5
16	8	13	20	2	19	67	2	12	4
16	0	36	44	35	31	95	2	12	36
17	8	33	43	44	30	83	4	18	37
17	10	23	1	10	16	25	2	12	8
16	6	30	16	7	34	76	2	12	21

NAVAL CADETS.

Fourth class—121 members.

Name.	State.	Date of admission.	Age at date of admission.		Sea-service in practice-ships.	
			Years.	Months.	Months.	Days.
Alexander, James Nelson.....	Missouri.....	May 19, 1883	15	11	2	12
Allen, Henry Asa.....	Wisconsin.....	Sept. 4, 1883	16	7		
Allen, Walter Raymond.....	New York.....	Sept. 6, 1883	17	10		
Bachman, Morris Piper.....	Iowa.....	Sept. 4, 1883	16	4		
Ballinger, James Guy.....	Kansas.....	Sept. 6, 1883	16	2		
Bertolette, Levi Calvin.....	Delaware.....	Sept. 4, 1883	17	2		
Beswick, Delworth Wilson.....	Michigan.....	Sept. 27, 1883	15	0		
Blackwood, Norman Jerome.....	Pennsylvania.....	May 17, 1883	17	4	2	12
Blue, Victor.....	South Carolina.....	Sept. 6, 1883	17	9		
Bonham, William Butler.....	South Carolina.....	June 1, 1883	17	0	2	12
Boughter, Francis.....	Pennsylvania.....	May 17, 1883	14	4	2	12
Bower, James McKesson.....	Illinois.....	Sept. 15, 1883	17	6		
Bristol, Mark Lambert.....	New Jersey.....	May 19, 1883	15	1	2	12
Brown, Ford Hopkins.....	Iowa.....	May 17, 1883	16	6	2	12
Bruns, William Frederick.....	Kentucky.....	Oct. 3, 1883	17	5		
Brucks, Henry Edward.....	New York.....	Sept. 3, 1883	17	3		
Bryan, Henry Frank.....	Ohio.....	May 2, 1883	18	0	2	12
Burke, Walter Safford.....	Illinois.....	May 17, 1883	16	4	2	12
Burrage, Guy Hamilton.....	Massachusetts.....	Sept. 6, 1883	16	2		
Callaghan, William Charles.....	Ohio.....	May 17, 1883	14	8	2	12
Campbell, Archie Perrin.....	Missouri.....	Sept. 6, 1883	15	3		
Canaday, Walter.....	New York.....	Sept. 10, 1883	17	0		
Carden, Godfrey Lynet.....	California.....	May 17, 1883	16	9	2	12
Carnahan, John Sylvanus.....	Ohio.....	Sept. 27, 1883	17	9		
Carpenter, Henry Wilson.....	At large.....	Sept. 6, 1883	17	4		
Cash, Charles Frederick.....	Wisconsin.....	May 17, 1883	16	10	2	12
Childs, Herbert Leslie.....	Massachusetts.....	May 17, 1883	15	4	2	12
Churchill, Creighton.....	Missouri.....	Sept. 4, 1883	17	0		
Cloke, William Snelling.....	New Jersey.....	May 17, 1883	17	3	2	12
Cochran, Claude Stanley.....	Ohio.....	Sept. 4, 1883	17	10		
Cohen, Ambrose Ransom Wright.....	Georgia.....	May 17, 1883	14	9	2	12
Cole, Eli Kelley.....	New York.....	Sept. 4, 1883	16	0		
Coleman, Ross.....	California.....	May 17, 1883	15	10	2	12
Craig, Charles Curtis.....	Illinois.....	May 17, 1883	16	11	2	12
Craig, Colin Samuel.....	Iowa.....	May 17, 1883	17	1	2	12
Darby, Samuel Edgar.....	Arkansas.....	Sept. 28, 1882	15	8	2	12
Davis, Archibald Hilliard.....	North Carolina.....	May 17, 1883	16	8	2	12
Davis, Henry Harmon.....	Illinois.....	Sept. 26, 1883	17	10		
Decker, Benton Clark.....	Illinois.....	May 17, 1883	15	4		12
Draper, Herbert Lemuel.....	Kansas.....	Sept. 6, 1883	16	8		
Durell, Edward Hovey.....	Massachusetts.....	May 17, 1883	17	3	2	12
Edmonds, Samuel Preston.....	Missouri.....	May 19, 1883	15	9	2	12
Edmundson, Erle.....	Tennessee.....	Sept. 4, 1883	16	0		
Ethell, John Edward.....	Indiana.....	Sept. 6, 1883	15	6		
Eyre, George Washington.....	Pennsylvania.....	Sept. 4, 1883	17	11		
Eyre, William Preston.....	Pennsylvania.....	May 17, 1883	15	10	2	12
Fitzgerald, George William.....	Illinois.....	May 19, 1883	16	2	2	12
Frick, Oliver O'Donnell.....	Maryland.....	Sept. 6, 1883	14	7		
Galloway, George William.....	Michigan.....	May 19, 1883	17	3	2	12
Gillespie, William Thomas.....	Virginia.....	Sept. 26, 1883	14	5		
Gueydan, Henry Louis.....	Texas.....	Sept. 4, 1883	15			
Guthrie, Joseph Alfred.....	At large.....	May 28, 1883	17	8	2	12

NAVAL CADETS.

Fourth class—121 members—Continued.

Name.	State.	Date of admission.	Age at date of admission.		Sea-service in practice-ships.	
			Years.	Months.	Months.	Days.
Hibbs, Frank Warren.....	Minnesota.....	Sept. 4, 1883	15	10		
Hill, Alfred Newcomb.....	Illinois.....	Sept. 4, 1883	16	9		
Hill, Charles Sanderson.....	Arizona Territory.....	Sept. 6, 1883	16	2		
Hollis, William Stanley.....	Massachusetts.....	Sept. 6, 1883	17	5		
Hudson, Charles Edward.....	Arkansas.....	Sept. 4, 1883	16	10		
Hull, Robert Carter.....	At large.....	Sept. 25, 1883	14	0		
Hurlbut, Samuel Ray.....	Connecticut.....	Sept. 4, 1883	16	10		
Irwin, Sam Willson.....	Indiana.....	June 17, 1882	17	4	2	6
Jacobs, James Lasell.....	New York.....	May 19, 1883	16	9	2	12
Jackson, Richard Harrison.....	Alabama.....	June 4, 1883	17	0		
Jewett, Thomas Scovell.....	Kansas.....	May 17, 1883	16	9	2	12
Johnston, Charles Ernest.....	Ohio.....	May 17, 1883	17	2	2	12
Kalbach, Lewis Alvin.....	Pennsylvania.....	Sept. 26, 1883	16	9		
Kelly, Frank.....	New York.....	May 21, 1883	17	4	2	12
Kochersperger, William Daniel.....	Pennsylvania.....	May 19, 1883	14	0	2	12
Koester, Oscar William.....	Pennsylvania.....	Sept. 26, 1883	17	4		
La Tourette, William Sherman.....	Ohio.....	Oct. 21, 1882	17	5	2	12
Logan, George Wood.....	Ohio.....	Sept. 3, 1883	14	10		
Long, Andrew Theodore.....	North Carolina.....	May 17, 1883	17	1		12
Luzenberg, Charles Kennard.....	Louisiana.....	July 10, 1883	18	0		
Lynott, George Edward.....	Missouri.....	Sept. 6, 1883	17	8		
McCully, jr., Newton Alexander.....	South Carolina.....	May 19, 1883	15	11	2	12
McGee, Harry Webster.....	Texas.....	May 19, 1883	16	4	2	12
McMillan, William Graham.....	North Carolina.....	Sept. 4, 1883	17	6		
Marriott, John Jordan Crittenden.....	At large.....	Sept. 26, 1883	16	6		
Martin, John Joseph.....	New York.....	Sept. 4, 1883	17	7		
Moale, Edward.....	Montana.....	June 17, 1882	15	8	4	18
Moore, Frederick Gordon.....	Kansas.....	May 17, 1883	17	6	2	12
Morgan, Edward Parry.....	At large.....	Sept. 4, 1883	17	0		
Moseley, William Branch.....	Texas.....	Sept. 6, 1883	16	9		
Mowbray, Louis.....	New York.....	Sept. 21, 1883	16	7		
Muller, Valentine Hamilton.....	New York.....	Sept. 4, 1883	16	0		
Murray, William Joseph.....	New York.....	June 17, 1882	15	3	4	18
O'Halloran, Thomas Michael.....	Pennsylvania.....	May 17, 1883	16	4	2	12
O'Neill, Miles Gaylord.....	Indiana.....	Sept. 28, 1883	16	5		
Peacock, William Towler.....	Indiana.....	Sept. 6, 1883	17	8		
Peckham, Henry Lincoln.....	Rhode Island.....	May 17, 1883	17	10	2	12
Phillips, Charles Thomas.....	Tennessee.....	Sept. 6, 1883	16	2		
Pigott, Michael Royston.....	Massachusetts.....	Sept. 20, 1883	17	7		
Porter, Alpheus Lee.....	Maryland.....	Sept. 6, 1883	17	4		
Potter, Franklin.....	New York.....	May 17, 1883	15	11	2	12
Rodgers, Henry Croghan.....	At large.....	May 19, 1883	16	6	2	12
Ricketts, Joseph Vincent.....	Ohio.....	Sept. 6, 1883	16	11		
Russell, Frank Meade.....	Pennsylvania.....	May 19, 1883	17	4	2	12
Salter, Jasper Colton.....	New York.....	Sept. 28, 1882	15	7	2	12
Scales, Archibald Henderson.....	North Carolina.....	May 19, 1883	15	1	2	12
Seymour, William Henry.....	Alabama.....	Sept. 17, 1883	15	8		
Sims, James Whittle.....	Virginia.....	Sept. 4, 1883	16	10		
Snow, Elliot.....	Utah Territory.....	Sept. 4, 1883	17	2		

NAVAL CADETS.

Fourth class—121 members—Continued.

Name.	State.	Date of admission.	Age at date of admission.		Sea-service in practice-ships.	
			Years.	Months.	Months.	Days.
Steber, Benjamin.....	New York	May 17, 1883	17	6	2	12
Stearns, Ben Wade.....	Iowa	May 17, 1883	15	0	2	12
Stocker, Robert.....	Minnesota	Sept. 4, 1883	17	7		
Stone, Clarence Morton.....	Indiana	Sept. 25, 1883	16	11		
Straub, August Adolph	Pennsylvania	Sept. 6, 1883	15	7		
Swansthom, Frederick Emil	Minnesota	Sept. 6, 1883	16	10		
Taliaferro, Edwin Mumford	Texas	Sept. 6, 1883	17	6		
Tolin, William Edward.....	Illinois	Sept. 6, 1883	16	6		
Ubsdell, John Arnold.....	Missouri	Sept. 6, 1883	16	10		
Van Antwerp, William Clarkson ..	Iowa	May 19, 1883	15	10	2	12
Van De Wyngaard, James.....	New York	Sept. 27, 1883	14	8		
Washington, Thomas.....	North Carolina.....	May 17, 1883	18	0	2	12
Waters, Glen.....	Georgia	May 17, 1883	14	11	2	12
Wells, Benjamin Warner	Illinois	May 17, 1883	15	4	2	12
Welsh, Joseph John	Ohio	May 19, 1883	16	9	2	12
Wethered, John Latham.....	Maryland	Sept. 3, 1883	16	3		
Wilmer, William Ringgold	Maryland	May 17, 1883	16	1	2	12
Williams, William Herschell	Alabama	May 17, 1883	16	7	2	12
Wiley, Henry Ariosto.....	Texas	May 17, 1883	16	3	2	12
Young, Louis le Sassier	Louisiana.....	Sept. 6, 1883	17	10		

NUMERICAL SUMMARY.

October, 1883.

NAVAL CADETS.

First class	48 members.
Second class	45 members.
Third class	33 members.
Fourth class	121 members.
Total	247

RESIGNATIONS AND DISMISSALS.

December 2, 1882, to October 15, 1883.

RESIGNED.

Naval Cadet Horry D. Clark.....	Dec. 2, 1882
Naval Cadet Henry D. Blake.....	Dec. 13, 1882
Naval Cadet Thomas P. Ledbetter.....	Dec. 19, 1882
Naval Cadet Charles W. Stebbins.....	Jan. 22, 1883
Naval Cadet James S. Davis.....	Jan. 23, 1883
Naval Cadet John W. Wood.....	Jan. 23, 1883
Naval Cadet Henry B. Treadway.....	Jan. 23, 1883
Naval Cadet Albert B. Sloan.....	Jan. 25, 1883
Naval Cadet William E. Cook.....	Feb. 7, 1883
Naval Cadet Charles C. Baron.....	Feb. 7, 1883
Naval Cadet Wallace N. Proctor.....	Feb. 12, 1883
Naval Cadet Arthur Dovale.....	Feb. 13, 1883
Naval Cadet James A. P. Crisfield.....	Feb. 13, 1883
Naval Cadet Frederic H. Sargent.....	Feb. 13, 1883
Naval Cadet John M. Biddle.....	Feb. 13, 1883
Naval Cadet Harry D. Wood.....	Feb. 13, 1883
Naval Cadet Harry H. McCord.....	Mar. 21, 1883
Naval Cadet Henry L. Howard.....	Mar. 27, 1883
Naval Cadet John C. Atwood.....	Mar. 30, 1883
Naval Cadet Edward W. Tilden.....	April 3, 1883
Naval Cadet William Shields.....	April 9, 1883
Naval Cadet Frank G. Raichle.....	April 9, 1883
Naval Cadet William W. Culver.....	April 10, 1883
Naval Cadet William N. Redfield.....	April 13, 1883
Naval Cadet Walter R. Allen.....	June 1, 1883
Naval Cadet Andrew P. Biddle.....	June 6, 1883
Naval Cadet William B. Carswell.....	June 9, 1883
Naval Cadet Elton W. Dalrymple.....	June 9, 1883
Naval Cadet George F. Zinnell.....	June 9, 1883
Naval Cadet William S. Aldrich.....	June 11, 1883
Naval Cadet Arthur L. Hughes.....	June 12, 1883
Naval Cadet John P. Knettles.....	June 12, 1883
Naval Cadet William A. Barker.....	June 14, 1883
Naval Cadet Vaulx Carter.....	June 14, 1883
Naval Cadet William P. Williams.....	June 14, 1883
Naval Cadet John J. Martin.....	June 14, 1883
Naval Cadet Jerome Van Keuren.....	June 14, 1883
Naval Cadet John L. Rees.....	July 6, 1883
Naval Cadet Julius Ellinger.....	Aug. 11, 1883
Naval Cadet John H. Barnard.....	Aug. 11, 1883
Naval Cadet John A. Jackson.....	Aug. 11, 1883
Naval Cadet Harry A. Gillis.....	Aug. 25, 1883
Naval Cadet Cyrus T. Brady.....	Sept. 1, 1883
Naval Cadet Thomas H. Matthews.....	Oct. 10, 1883

DROPPED.

Naval Cadet Thomas B. Smith	Feb. 13, 1883
Naval Cadet Joseph N. Allison	Feb. 13, 1883
Naval Cadet Robert W. Beckham	Feb. 13, 1883
Naval Cadet Hugh W. Brockway	Feb. 13, 1883
Naval Cadet Edwin A. Heilig	Feb. 13, 1883
Naval Cadet Charles K. Luzenberg	Feb. 13, 1883
Naval Cadet Miles G. O'Neill	Feb. 13, 1883
Naval Cadet Charles E. Woodruff	Feb. 28, 1883
Naval Cadet Charles J. Gross	Feb. 28, 1883
Naval Cadet William A. Megrath	Feb. 28, 1883
Naval Cadet Isaac G. Quinby	Mar. 16, 1883
Naval Cadet Frederic H. Sparling	Mar. 16, 1883
Naval Cadet William C. Francis	June 15, 1883
Naval Cadet Clarence M. Stone	June 15, 1883
Naval Cadet Horace B. Andrews	June 30, 1883

DISMISSED.

Naval Cadet William E. Bowman	May 28, 1883
^b Naval Cadet Ellsworth P. Bertholf	Sept. 12, 1883
^b Naval Cadet Archibald Campbell	Sept. 12, 1883
^b Naval Cadet Franklin Moeller	Sept. 12, 1883
^b Naval Cadet Benjamin Trapnell	Sept. 12, 1883
^b Naval Cadet Clare B. Bird	Sept. 15, 1883
^b Naval Cadet James R. Tuggle	Sept. 19, 1883
^b Naval Cadet Charles E. Hawkes	Sept. 20, 1883

^b For hazing.

MERIT-ROLLS FOR 1882-83.

Merit-rolls, made out annually for each class, show the proficiency of the cadets in each branch of study. The numbers given in the table, page 62, showing the relative weight of the different branches, are used as coefficients; the final mark in each branch (on a scale of 4) being multiplied by the number assigned to that branch. The sum of the products, after making deductions for conduct, is the final mark of the cadet for the year.

In the case of cadets who take an advanced course in any branch, the final mark in that branch is determined by adding to the final mark received in the required course one-fifth of the amount by which the final mark in the advanced course exceeds 2.50.

In the graduating merit-roll, the final mark for the course is determined by the sum of the four yearly marks.

"Cadets who attain 85 per cent. of the multiple in any year shall be distinguished by a star affixed to their names on the merit-rolls."—(Regulations U. S. Naval Academy, § 150.)

Cadets whose names are marked thus (+) were found deficient, but were allowed to continue in their classes on condition of passing at a re-examination.

Those marked thus (‡) were found deficient, and turned back, to recommence the studies of their respective classes.

Those marked thus (½) were found deficient, and recommended to be dropped.

(a) denotes absence from examination.

Merit-roll of graduating class of naval cadets at conclusion of six years' course, June, 1883.

Order of merit.	Name.	Seamanship and nautical		Gunnery.	Steam engineer- ing.	Navigation.	French.	Aptitude.	Aggregate for examination.	General aggregate for four years.	Final aggregate.	ASSIGNMENT.
		60	4S	4S	4S	4S	24	12	240	760	1000	
	Maxima for this class											
*1	Joseph H. Linnard ^a	52.65	46.20	45.24	45.60	45.60	20.10	9.45	219.24	675.68	894.92	
*2	Joseph J. Woodward ^a	53.25	44.04	36.84	45.96	45.96	21.00	12.00	213.09	680.89	893.98	
*3	John A. Hoogewerff	54.90	41.88	36.12	43.80	43.80	20.70	11.79	209.19	667.23	876.42	Ensign (junior grade).
*4	Robert B. Dashiell	60.00	41.04	41.16	41.40	41.40	21.00	12.00	216.60	649.23	865.83	Ensign (junior grade).
*5	Frederic C. Rider	51.75	43.56	44.52	45.60	45.60	18.90	11.64	215.97	644.50	860.47	Second lieutenant, Marine Corps.
*6	Francis E. Sutton	49.80	39.24	33.36	44.76	44.76	21.30	10.50	198.96	654.16	853.12	Second lieutenant, Marine Corps.
7	Harry K. White	52.35	45.36	35.52	39.36	39.36	18.30	8.55	199.44	642.63	842.12	Assistant engineer.
8	Lincoln Karmany	51.90	44.28	32.88	40.20	40.20	18.60	11.10	198.96	641.40	840.36	Second lieutenant, Marine Corps
9	Edward E. Capelhart	48.90	40.20	30.60	37.56	37.56	20.10	10.29	187.65	623.12	810.77	Ensign (junior grade).
10	Houston Eldredge	48.60	44.64	36.60	41.76	41.76	19.50	11.19	202.29	608.39	810.68	Ensign (junior grade).
11	Eugene Carroll ^b	45.00	38.28	30.48	41.76	41.76	18.30	9.84	183.66	615.63	799.29	
12	Robert P. Forshe ^b	53.40	39.60	32.52	37.56	37.56	18.00	10.65	191.73	597.10	788.83	
13	Charles A. Doyen	45.45	36.84	41.28	36.60	36.60	20.10	11.34	191.61	590.92	782.53	Second lieutenant, Marine Corps.
14	Charles H. Lauchheimer	42.45	41.76	30.60	39.36	39.36	20.70	10.14	185.01	597.15	782.16	Second lieutenant, Marine Corps.
15	William H. Stayton	39.45	42.12	33.48	42.36	42.36	16.80	9.99	184.20	596.36	780.56	Second lieutenant, Marine Corps.
16	Horace B. Andrews ^c	47.10	34.08	30.96	40.80	40.80	18.30	9.99	181.83	585.82	767.65	
17	Henry B. Wilson	46.35	36.48	30.00	36.96	36.96	16.20	10.35	176.34	586.42	762.76	Ensign (junior grade).
18	George P. Blow	53.40	36.72	42.72	33.96	33.96	16.50	10.80	194.10	567.49	761.59	Ensign (junior grade).
19	Henry C. Haines	43.35	42.48	34.20	40.80	40.80	17.40	9.00	187.23	568.90	756.13	Second lieutenant, Marine Corps.
20	James E. Mahoney	43.95	42.60	28.08	24.00	24.00	18.60	10.35	167.58	537.32	754.90	Second lieutenant, Marine Corps.
21	Gilbert Wilkes	45.60	36.24	34.68	33.96	33.96	19.20	10.89	180.57	571.30	751.88	Ensign (junior grade).
22	Jay M. Whitham .....	.....	25.68	46.92	.....	.....	15.00	12.00	99.60	642.61	742.21	Assistant engineer.
23	George Barnett	44.10	36.72	33.96	31.56	31.56	15.90	10.74	172.98	567.15	740.13	Second lieutenant, Marine Corps.
24	Franklin J. Moses	40.05	31.56	30.96	36.00	36.00	16.20	8.10	162.87	573.97	739.84	Second lieutenant, Marine Corps.
25	Alexander R. Hasson ^d	43.20	39.48	30.84	38.16	38.16	16.20	8.04	175.92	561.31	737.23	

Assistant engineer.

26	Con M. Perkins.....	43.35	39.24	33.48	30.00	16.80	8.19	171.05	555.16	736.22
27	George Clarke ^b	40.95	39.12	35.04	40.56	16.80	9.15	181.62	551.50	736.12
28	James H. Cowen ^b	40.80	39.96	36.24	37.80	15.30	8.19	178.29	555.11	733.40
29	William M. Robinson ^b	50.55	36.48	30.00	36.36	16.50	9.69	179.58	552.84	732.42
30	Samuel Bryan ^b	40.80	38.40	35.40	37.80	17.40	10.14	179.94	551.84	731.78
31	Frederick W. Smiles ^b	39.30	35.88	34.92	38.76	15.30	9.15	173.31	555.40	728.71
32	Ovington E. Weller ^b	43.20	41.52	30.00	36.00	18.60	8.85	178.17	549.63	727.80
33	William F. Flournoy ^b	41.70	36.36	30.00	36.96	21.30	5.64	171.96	555.78	727.74
34	Gay M. Buck ^b	45.45	38.16	31.32	35.16	16.50	8.25	174.84	551.97	726.81
35	Harry R. Cohen ^b	43.65	39.00	31.32	38.40	17.10	8.70	178.17	548.31	726.48
36	Henry L. Ballentine ^b	42.45	36.12	30.00	34.56	18.30	9.00	170.43	554.84	725.27
37	James D. Crenshaw ^b	40.95	37.20	36.72	37.80	17.70	10.44	180.81	543.28	724.09
38	William G. Ford ^b	50.10	43.08	33.60	36.96	18.00	10.44	192.18	530.67	722.85
39	Charles W. Stewart ^b	42.30	35.04	27.84	41.16	18.30	9.30	173.94	547.99	721.93
40	Charles P. George ^b	42.90	34.56	25.80	40.80	15.60	11.10	170.76	550.54	721.30
41	John A. Kimball ^b	46.20	38.88	30.00	34.80	17.70	8.64	176.22	543.51	719.73
42	Alexander S. M. Crea ^b	40.35	40.20	34.32	38.40	19.20	8.79	181.25	535.19	716.45
43	Robert P. Hains ^b	43.95	37.44	33.96	33.00	16.80	10.05	175.20	541.22	716.42
44	Edward H. Harrison ^b	38.40	39.00	30.84	33.36	15.00	8.70	165.30	550.80	716.10
45	Ira McFunkin ^b	43.35	40.56	31.80	33.00	15.00	9.60	173.31	541.65	714.96
46	Spencer M. Kase ^b	47.25	33.60	31.92	33.60	16.20	7.35	169.92	538.95	708.87
47	David L. Printup ^b	47.85	36.96	33.72	32.40	16.20	6.15	173.23	535.24	708.52
48	John W. Weeks ^b	39.00	33.96	23.40	31.80	16.50	9.69	154.35	551.53	705.88
49	Michael J. Donnelly ^b	45.45	38.52	32.88	39.96	15.00	5.70	177.51	525.63	703.14
50	Gustav Kaemmerling ^b		16.08	43.32	.....	18.00	11.10	88.50	614.55	703.05
51	Rudolphus R. Cockle ^b	43.95	34.32	30.24	30.00	17.10	7.14	162.75	540.21	702.96
52	Macdonough Craven ^b	46.20	37.92	32.04	36.36	15.60	6.69	174.81	528.07	702.88
53	William Le Roy Emmet ^b	38.85	38.88	34.80	34.20	15.00	7.50	169.23	529.60	698.83
54	Eugene M. Harmon ^b	45.30	34.44	31.32	33.60	17.40	10.35	172.41	526.23	698.64
55	Silas H. Wright ^b	41.40	38.16	37.20	37.68	16.50	8.70	179.61	514.35	698.99
56	James E. Byrne ^b	3.00	31.08	41.40	.....	17.10	12.00	104.58	584.80	689.38
57	Gay G. Rodgers ^b	38.25	34.44	25.44	30.96	16.50	8.94	154.53	526.25	680.78
58	Lloyd Bunkson ^b	22.20	25.20	43.20	.....	18.00	12.00	120.60	559.96	680.56

^aAppointed assistant naval constructor.^bHonorably discharged at his own request.^cFailed to pass physical examination.
^dHonorably discharged under law of August 5, 1882.^aPlaced at foot of his class by Navy Department order of August 30, 1881

ERRATA.

Page 39, No. 55, Silas H. Wright's standing in Steam Engineering and

Navigation should be interchanged.

Page 40, No. 62, William T. Webster, ditto.

Page 40, No. 63, Thomas H. Matthews, ditto.

Page 40, No. 80, Albert Moritz, ditto.

Page 42, *1, Samuel D. Green, jr., should read Samuel D. Greene, jr.

^a Appointed assistant naval constructor.

^c Failed to pass physical examination.

^e Eyes injured in line of duty; by advice of medical officer did not attempt written examination; examined orally and given certificate of graduation; waived class number; standing in class at end of four years' course, Number 15.

^f Deficient in June in steam engineering; re-examined in September and passed.

^g Deficient; resigned.

^h Honorably discharged under law of August 5, 1882.

Frank E. Bunts ^{e,h}	37.50	37.20	33.60	36.00	19.80	10.41	174.51	598.12	772.63
John L. Rees ^g	45.15	28.08	26.16	38.40	18.60	8.79	165.78	656.16	819.94
Daniel Morgan ^h	37.95	31.92	25.80	32.76	15.60	9.15	153.18	490.44	643.62
Zehnlou B. Vance ^{f,h}	32.10	31.32	27.12	33.96	16.50	8.49	149.49	492.26	641.75
Clarence H. Mathews.....	Absent..								
John L. Schock ^a	Absent..								
Samuel H. Williamson.....	Absent..								

Merit-roll of the naval cadets of the first class (54 members), annual examination, June, 1883, and general merit-roll for four years.

Order of merit, four years.	Name.	Seamanship.	Ship-building.	Gunnery.	Marine engines.	Theory of navigation.	Practical navigation.	Electricity.	Physical measurements.	Naval architecture.	International law.	Spanish.	Conduct.	Aggregate for fourth year.	Aggregate for third year.	Aggregate for second year.	Aggregate for first year.	General aggregate for four years.
		44	20	56	44	28	32	24	8	20	12	16		304	228	152	76	760
*1	Maxima.....																	
*2	Samuel D. Green, jr.....	41.58	17.90	53.76	35.97	24.92	28.56	21.24	7.34	18.75	11.10	15.08	2.07	274.13	213.91	140.96	68.65	697.65
*3	George W. Street.....	40.81	14.55	53.06	35.20	25.62	29.76	21.24	6.86	18.55	10.71	14.04	1.47	268.93	203.44	140.73	68.34	691.44
*4	Samuel W. Armistead.....	35.53	18.95	53.06	40.26	23.87	28.40	20.64	7.20	18.30	10.38	14.20	0.30	270.49	204.75	141.62	67.34	684.20
*5	William J. Baxter.....	31.57	16.80	52.36	40.48	22.61	26.80	20.28	7.34	17.95	10.47	13.40	0.24	259.82	199.06	140.53	67.15	666.56
*6	Charles P. Eaton.....	30.91	15.10	50.82	38.83	24.85	26.16	22.14	7.50	17.80	9.81	14.56	0.27	258.21	197.22	136.12	66.20	657.75
*7	William S. Aldrich.....	30.47	17.85	52.64	41.25	21.98	27.84	20.46	7.40	17.50	9.48	13.24	1.65	258.46	199.97	132.06	59.12	649.61
*8	John B. Jackson.....	36.85	15.65	50.40	33.33	22.19	25.92	17.34	6.80	17.85	10.29	14.24	0.36	250.50	194.98	131.59	67.23	644.30
*9	George W. Littlehales.....	32.23	18.30	51.10	39.71	22.12	27.04	20.88	7.06	17.75	10.56	15.12	0.78	261.69	192.69	129.69	60.08	643.55
*10	Charles W. Dyson.....	35.53	17.20	51.24	39.93	21.63	27.20	19.50	7.34	17.30	10.47	14.80	0.57	261.57	191.94	127.25	61.63	642.39
*11	John M. Elliott.....	33.22	18.15	50.54	40.15	22.68	25.68	18.06	6.94	16.00	10.17	12.88	.....	254.47	188.43	131.24	67.11	641.25
*12	Richard W. Barkley.....	37.07	17.25	50.26	36.85	24.57	29.04	18.84	7.34	17.60	10.02	14.22	1.38	261.78	193.99	127.58	50.61	633.96
*13	William F. Darrah.....	33.55	16.45	49.98	40.59	23.45	26.64	20.52	7.06	16.95	10.32	13.60	2.25	256.86	186.71	125.89	63.32	632.78
*14	Charles E. Sweeting.....	36.41	15.10	48.16	39.92	21.21	26.48	17.58	6.14	17.95	9.60	12.24	4.11	236.68	197.56	131.78	65.99	632.01
*15	George F. Zimmel.....	32.67	18.00	51.66	38.72	21.63	24.40	18.06	7.00	17.50	10.77	13.68	0.81	253.28	189.27	126.15	61.12	629.82
*16	Albion S. Keith.....	39.82	15.30	52.64	35.64	24.08	27.12	19.92	7.40	16.75	9.99	14.08	0.24	262.50	189.00	116.98	58.25	626.73
*17	Harry Georgel.....	39.38	17.85	50.12	32.78	24.15	27.28	17.94	6.86	17.35	9.99	11.68	3.33	252.05	188.25	122.34	58.03	620.67
*18	Benjamin E. Thurston.....	35.09	14.95	47.46	32.67	23.94	25.76	17.94	6.14	14.80	9.72	12.92	0.69	240.70	182.73	125.85	59.37	608.65
*19	Alexander S. Halstead.....	31.79	15.15	45.36	34.65	19.39	21.84	16.80	6.74	15.35	9.54	12.80	2.19	227.22	182.98	120.03	59.07	589.30
*20	Frederick L. Chapin.....	39.82	17.40	44.94	31.90	20.93	23.52	16.14	6.40	14.85	10.29	12.92	0.03	239.08	176.54	116.32	55.72	587.66
*21	Robert C. Alexander.....	38.72	15.65	42.84	31.24	21.70	23.44	17.40	6.54	14.90	8.64	12.96	2.46	231.57	177.93	114.64	52.84	576.98
*22	William C. Herbert.....	31.79	17.65	47.32	37.51	21.07	23.36	17.94	6.06	15.25	9.42	13.36	2.70	238.03	176.83	107.05	52.36	574.27
*23	Harry A. Field.....	33.88	17.55	40.04	34.65	18.69	21.76	15.96	6.06	13.30	8.97	11.00	0.45	221.41	172.06	116.41	56.54	566.42
*24	Charles F. Webster.....	32.23	15.25	48.16	34.54	20.58	22.16	17.10	6.20	14.60	9.84	11.52	1.83	230.35	173.96	106.81	54.96	566.08

24	Thomas H. Gignilliat	33.33	14.40	43.26	30.91	20.37	21.12	17.40	6.86	14.85	9.72	11.80	1.92	222.10	167.67	110.63	62.09	562.49
25	John H. Barnard	39.27	14.25	42.00	30.25	20.93	21.76	16.02	6.54	12.75	8.61	11.24	1.77	221.85	173.02	110.74	55.67	561.28
26	Alfred P. Agee	37.62	14.10	41.86	30.25	21.35	22.76	16.26	6.46	15.25	9.21	11.20	2.40	224.92	166.40	111.29	58.64	561.25
27	Thomas A. Witherspoon	36.63	14.50	41.86	30.25	21.35	22.00	15.90	6.46	14.85	9.60	12.65	1.20	222.66	173.98	107.72	55.14	559.50
28	Robert T. Frazier	35.69	12.95	39.76	28.33	19.11	21.04	16.68	6.54	14.50	9.03	12.92	3.57	212.43	168.84	116.96	58.67	556.90
29	George C. Stout	38.50	17.15	36.82	28.82	17.78	22.96	15.84	5.94	14.10	9.78	11.16	4.26	214.59	175.39	111.14	55.14	556.26
30	Cyrus T. Brady	32.67	15.00	41.02	29.15	18.34	22.88	15.54	6.20	15.50	9.72	12.48	3.99	214.51	167.87	113.69	58.58	554.65
31	Sydney Z. Mitchell	37.95	14.85	40.60	30.80	21.84	25.32	17.82	6.74	14.95	9.06	13.60	2.25	232.08	164.89	102.27	51.61	553.85
32	John A. Jackson	34.32	14.70	39.20	30.70	20.51	23.36	16.20	6.40	14.10	9.33	11.88	3.63	216.07	170.85	110.56	55.52	553.00
33	Harry H. Balthis	34.65	16.95	43.68	30.47	20.44	24.24	16.68	6.40	14.40	9.27	13.20	1.74	228.64	156.67	107.56	57.44	550.31
34	Tremont V. Toney	36.08	13.05	38.36	28.60	19.32	23.76	15.18	6.66	12.55	9.30	11.80	2.10	212.56	166.87	105.93	54.78	540.14
35	Frank R. Colvin	36.74	13.90	39.76	28.71	19.18	22.40	18.00	6.60	15.05	9.51	12.64	1.08	221.41	160.70	105.56	52.24	539.91
36	Elton W. Dalrymple	33.00	13.60	42.98	30.80	19.25	24.16	15.90	6.54	14.85	9.21	11.56	2.94	218.91	156.30	106.66	57.04	538.91
37	Timothy S. O'Leary	35.97	13.90	37.10	29.26	18.48	22.00	16.08	6.06	13.60	9.06	11.64	0.84	212.31	166.82	105.48	53.93	538.54
38	Patrick H. Philbin	33.44	12.70	38.61	28.82	19.46	21.92	16.26	5.94	13.05	8.46	11.52	1.86	208.35	163.21	107.54	59.11	538.21
39	William B. Carswell	29.15	14.90	39.20	32.34	19.32	21.52	15.84	6.06	13.35	9.36	11.63	0.78	211.94	162.32	106.62	56.05	536.93
40	Robert L. Lerch	33.99	14.00	36.26	28.27	17.78	20.80	15.90	6.20	13.15	8.10	14.36	3.09	205.72	166.65	110.15	53.05	535.37
41	Robert H. Woods	34.32	13.90	38.50	27.50	19.04	20.88	15.30	5.54	13.50	9.21	12.64	1.05	209.28	154.84	107.79	59.46	531.87
42	James E. Palmer	29.59	14.20	38.22	31.35	18.34	21.52	15.54	6.46	12.90	8.16	10.96	0.06	207.18	164.65	106.11	51.88	529.82
43	Julius Ellinger	28.49	13.40	38.64	30.91	18.48	21.52	15.72	5.86	14.55	8.91	12.08	4.29	204.27	167.46	104.53	52.46	528.72
44	Harry C. Pettit	32.89	13.05	33.64	28.60	17.64	21.76	15.54	5.80	12.95	8.61	11.72	4.44	202.76	165.01	104.71	49.90	522.88
45	Harry A. Gillis	29.48	12.80	33.78	30.80	16.52	20.64	15.90	6.20	12.55	9.45	11.00	1.50	202.62	157.98	107.10	53.34	521.04
46	Edwin B. Weeks	32.56	13.10	37.52	29.04	18.41	22.56	15.24	5.86	12.85	8.64	11.20	3.72	203.26	157.16	101.81	55.06	517.29
47	Thomas A. W. Shook	28.60	14.70	39.06	32.23	15.96	20.72	15.54	6.34	14.05	8.79	10.52	0.27	206.24	165.07	94.79	48.86	514.96
48	George M. von Schrader	31.35	12.55	36.68	27.50	17.22	20.96	14.16	5.84	12.50	8.37	10.16	3.99	192.80	155.20	118.54	48.11	514.65
49	William H. Ledbetter	35.86	15.40	37.10	28.16	19.81	22.80	15.60	5.74	11.45	8.94	12.20	2.10	210.96	153.82	98.47	55.18	512.10
50	William J. Wilson	31.79	14.00	40.18	29.37	17.78	21.68	15.66	5.06	12.85	9.33	11.36	1.44	208.22	154.60	98.21	49.78	510.81
51	Alexander B. Legaré	31.46	13.75	38.22	24.86	17.99	22.96	13.92	5.74	12.75	8.31	10.64	2.70	197.90	152.25	98.47	55.18	503.80
52	Willie T. Gray	30.80	13.20	35.56	28.71	17.78	20.56	15.42	6.40	12.70	8.34	11.20	3.18	197.40	151.21	97.19	54.50	500.39
53	Philip J. Ryan	27.50	13.65	35.70	27.72	17.15	21.04	13.98	5.94	12.10	9.03	10.92	3.15	191.53	155.03	99.78	52.79	499.18
54	Eustace S. Glascock	28.16	12.60	36.40	27.61	16.17	20.40	15.00	6.20	13.10	8.91	11.48	4.50	191.53	153.09	97.92	51.11	493.65

† Completed four years' course "with distinction."

‡ Received 85 per cent. of multiple for first class year.

‡ Resigned after receiving a certificate that he had completed the four years' course.
§ Completed four years' course "with credit."

Merit-roll of the naval cadets of the second class (52 members) at the annual examination, June, 1883.

Order of annual merit.	Name.	Seamanship.		Ship-building.		Ordnance and gunnery.		Marine engines.		Astronomy.		Chemistry.		Electricity.		Calculus.		Mechanics.		English and his- tory.		International law.		Conduct.		Aggregate.
		20	20	8	40	16	24	32	24	24	24	8	12	228												
	Maxima.....																									
*1	Charles H. Hewes.....	18.00	18.85	7.58	37.60	14.36	21.00	30.16	24.30	24.78	6.76	11.01	0.22	214.18												
*2	Chester M. Knepper.....	16.70	18.20	7.54	36.30	14.64	20.58	29.36	23.70	23.76	6.66	11.13	1.39	207.18												
*3	Washington L. Capps.....	15.85	18.60	7.18	35.00	14.08	20.22	27.08	23.46	20.76	7.20	11.07	0.27	200.83												
*4	Wilford B. Hoggatt.....	17.90	16.75	6.92	34.10	13.56	21.60	28.88	20.76	21.84	6.30	10.71	0.30	199.02												
*5	Frederic E. Curtis.....	16.55	17.55	7.36	33.20	13.40	21.00	26.88	23.58	22.02	6.86	10.74	1.01	198.13												
*6	Frank K. Hill.....	16.35	17.55	7.38	35.40	14.56	21.24	27.20	21.30	21.18	6.16	10.20	0.88	197.64												
*7	Clarence S. Williams.....	18.20	16.65	7.52	32.40	13.08	20.22	28.00	22.56	20.34	6.90	10.95	0.34	196.48												
8	Honace A. Field.....	14.50	18.35	7.06	32.70	14.08	21.72	27.60	19.74	17.76	7.06	10.80	0.10	191.27												
9	Albert M. Beecher.....	17.80	16.95	7.20	34.00	13.40	19.20	28.16	19.56	20.22	5.96	9.96	1.30	191.11												
10	Roger Welles, jr.....	17.60	16.95	7.52	32.50	12.32	17.52	26.64	21.96	21.60	6.56	9.33	0.40	190.10												
11	Herbert McNulta.....	18.50	1.10	6.88	32.20	12.44	20.19	26.00	19.86	17.28	6.20	9.48	0.70	185.34												
12	Nathaniel S. Moseley.....	18.95	18.30	6.82	30.90	12.60	20.70	24.24	19.50	17.70	6.60	10.23	2.76	183.78												
13	Douglass F. Terrell.....	15.20	15.40	7.24	32.70	12.96	19.44	27.92	16.02	16.80	6.30	10.77	0.21	180.54												
14	Henry E. Parmenter.....	16.90	16.00	7.08	31.50	12.40	17.40	25.44	18.78	18.24	6.90	9.45	0.81	179.28												
15	Walter O. Hulme.....	15.10	16.00	7.20	31.00	13.20	17.70	24.96	20.34	16.98	6.86	9.75	0.47	178.62												
16	John D. McDonald.....	16.85	15.55	6.76	30.40	12.56	20.52	24.80	17.52	18.30	6.20	9.72	0.56	178.62												
17	Thomas H. Leary.....	17.70	15.45	6.28	28.90	11.52	18.42	24.96	21.36	18.60	5.50	9.63	0.17	178.15												
18	Hilary P. Jones, jr.....	17.40	16.25	6.94	28.80	12.60	18.12	23.84	18.48	18.96	6.80	10.44	1.40	177.23												
19	Arthur L. Hughes.....	13.80	16.25	6.42	29.60	13.68	19.08	24.40	19.14	16.38	7.50	11.22	0.35	177.12												
20	Frederick J. Loomis.....	14.50	15.90	6.92	31.10	11.84	19.62	25.68	16.98	18.30	6.86	9.15	0.74	176.11												
21	Henry K. McKay.....	15.15	16.15	6.74	29.90	13.60	18.36	24.16	18.78	18.36	5.60	10.11	0.83	176.08												
22	Charles W. Hazeltine.....	16.10	14.60	6.88	29.50	13.32	19.62	25.44	17.10	17.22	6.20	10.59	0.74	175.83												

23	William R. Shoemaker	16.70	17.15	7.42	29.10	12.40	16.80	21.76	17.58	17.16	6.96	10.26	0.58	172.71
24	Isaac H. Seymour	16.55	16.25	6.56	29.50	11.80	17.88	24.64	17.64	15.60	5.96	10.26	0.29	172.35
25	John W. Maxey	16.90	14.70	6.54	28.30	12.28	19.80	23.44	18.78	16.26	5.86	9.24	2.46	169.40
26	Horace W. Jones	13.70	17.35	6.12	29.30	11.92	16.86	22.56	20.10	15.00	6.86	9.00	0.68	168.33
27	Charles P. Plunkett	17.60	14.45	5.74	27.70	11.68	16.38	22.56	22.26	15.48	6.20	8.64	2.44	166.25
28	Robert L. Wernitz	11.90	14.25	6.70	30.10	11.36	17.22	22.48	18.24	16.98	6.60	10.50	0.36	165.97
29	Leon H. Jaszkowski	15.90	12.50	5.52	27.30	10.96	17.28	25.52	19.26	18.36	6.30	8.85	1.83	165.92
30	Richard O. Crisp	13.20	13.75	6.48	27.90	10.84	16.80	23.76	19.98	19.14	6.10	8.94	1.23	165.66
31	Wirt McCreary	17.10	15.55	5.06	28.20	12.16	17.10	23.36	15.00	15.72	5.66	9.84	0.62	165.13
32	Charles M. Fahs	12.90	13.55	5.92	28.30	11.72	17.88	24.08	19.68	17.76	5.80	9.48	2.30	164.77
33	Victor Macpherson	15.80	13.60	6.72	26.80	11.00	16.98	23.04	18.24	16.98	6.26	8.64	1.65	162.41
34	Humes H. Whittlesey	12.90	14.75	6.20	26.50	11.96	17.82	22.32	17.70	16.68	6.20	9.87	0.64	162.26
35	Charles H. Hayes	16.25	15.20	6.72	28.50	10.96	17.10	23.12	13.74	15.42	6.60	9.51	1.35	161.77
36	Josiah S. McKean	17.10	15.00	6.00	27.80	10.92	16.26	23.84	16.32	15.00	5.10	9.12	2.35	160.71
37	John B. Starr	13.30	13.05	6.98	27.60	11.48	16.26	23.92	15.36	15.90	6.80	10.71	0.51	159.95
38	Pierre O. Keilholtz	14.15	13.95	6.02	28.40	10.80	16.26	23.12	16.50	15.00	5.46	9.51	1.60	159.54
39	John R. Harrell	16.75	14.50	5.98	27.50	11.72	16.20	23.52	15.96	15.00	5.46	9.36	1.20	159.36
40	Albert C. Mathews	14.55	15.15	6.04	27.80	12.12	15.72	22.32	15.96	15.54	6.00	9.36	1.20	159.36
41	William Johnston	16.10	14.75	6.46	27.10	10.68	16.92	21.60	15.96	16.14	5.90	8.55	1.18	158.98
42	William H. Lawrence	13.40	15.45	6.06	29.30	12.20	15.66	21.44	15.72	15.00	6.00	9.21	1.21	158.23
43	Thornton R. Richardson	14.70	15.95	6.40	26.60	11.00	15.90	21.52	17.22	15.00	5.40	8.67	0.53	157.83
44	Edward Davis	13.45	16.00	6.42	28.40	9.24	16.74	21.28	16.02	15.06	6.16	9.69	0.81	157.65
45	William W. Bush, Jr.	14.25	12.95	5.51	26.40	11.40	17.04	21.92	19.80	15.90	5.56	8.91	2.47	157.20
46	Sidney F. Smith	13.55	13.60	6.80	26.90	12.16	17.70	22.08	15.54	15.00	5.50	9.57	1.51	156.89
47	William A. O'Malley	14.90	14.90	6.24	26.80	10.48	15.00	20.32	15.84	14.04	6.16	8.70	1.52	151.86
48	William E. Wirt	12.35	12.65	5.62	25.60	10.56	15.66	20.88	13.92	15.24	5.70	8.55	2.17	144.56
†	Robert H. Orr	12.70	11.90	5.18	27.40	10.88	15.78	20.24	15.00	13.86	5.56	8.67	0.66	146.51
‡	William P. Williams	12.85	13.75	5.20	26.00	9.60	14.52	21.84	15.00	15.00	5.90	7.98	1.98	145.66
§	Vault Carter	17.00	14.30	7.08	27.00	9.60	15.30	13.12	15.00	12.06	5.00	8.46	2.72	141.20
||	William A. Barker	13.65	12.05	5.62	25.60	9.72	14.28	21.36	15.06	11.70	5.60	7.86	1.82	140.68

Merit-roll of the naval cadets of the third class (48 members), at the annual examination, June, 1883.

Order of annual merit.	Name.	Seamanship.	Mathematics first term.	Mathematics second term.	Chemistry.	English and history.	French.	Drawing.	Conduct.	Aggregate.
	Maxima.....	12	36	36	20	16	16	16		152
*1	David W. Taylor.....	9.57	35.64	36.00	18.60	15.08	14.48	15.16	0.13	144.40
*2	William McKay.....	10.86	34.38	35.01	18.85	15.20	14.52	15.08	0.19	143.71
*3	Albert C. Dieffenbach.....	10.47	35.01	35.28	17.15	13.84	14.08	14.88	0.38	140.33
*4	Theodore C. Fenton.....	9.84	34.38	35.37	15.55	13.88	11.20	15.04	0.05	135.21
*5	John G. Tawressey.....	10.86	31.59	33.12	17.80	14.96	11.00	15.16	0.06	134.43
*6	William G. Miller.....	9.45	32.49	33.39	16.50	13.12	13.52	12.52	1.01	129.98
7	George R. Slocum.....	10.77	29.79	32.13	16.35	14.60	12.76	12.84	0.58	123.66
8	Walker W. Joynes.....	10.23	29.88	28.89	16.65	14.64	12.80	14.32	0.13	127.28
9	Volney O. Chase.....	9.72	29.61	29.97	16.00	14.08	12.20	14.16	0.61	125.13
10	George W. Kline.....	8.61	31.77	33.57	15.20	11.76	10.40	13.24	0.12	124.43
11	Harrison A. Bispham.....	9.75	28.26	27.90	16.40	13.68	12.40	14.76	0.20	122.95
12	Robert L. Russell.....	9.51	27.45	28.71	16.05	14.44	13.32	10.96	0.33	120.11
13	Charles S. Stanworth.....	8.31	29.25	30.87	15.30	12.72	11.84	12.52	1.24	119.57
14	Armistead Rust.....	8.82	28.71	28.35	16.05	12.80	11.24	13.72	0.17	119.52
15	Joseph Strauss.....	7.83	27.90	28.98	15.50	12.60	11.52	14.96	0.55	118.74
16	James W. Kittrell.....	10.20	25.20	27.63	16.20	13.60	13.56	11.60	0.69	117.30
17	Louis E. Warfield.....	8.31	26.64	27.09	15.90	13.56	11.32	13.72	0.59	115.95
18	John P. McGuinness.....	9.48	26.91	27.36	14.95	12.88	12.64	12.12	0.46	115.88
19	Edward W. Eberle.....	9.36	27.00	26.64	15.60	13.20	11.04	11.84	0.57	114.11
20	Thomas B. Slade.....	10.29	24.93	27.72	14.15	12.48	10.88	13.92	0.55	113.82
21	David S. Nes.....	10.80	24.48	25.29	14.80	12.16	11.32	15.36	0.49	113.72
22	Alexander Thompson.....	9.99	24.57	25.20	16.90	14.00	11.24	11.88	0.51	113.27
23	Charles C. Poe.....	8.94	27.00	26.45	13.90	12.24	13.84	12.08	1.31	113.15
24	Benjamin M. Lombard.....	9.18	23.40	27.72	16.05	13.16	11.28	12.16	1.53	111.42
25	Robert E. Coontz.....	8.46	25.47	25.92	14.20	13.80	11.88	11.24	0.17	110.80
26	Harry L. Boyd.....	7.86	25.56	25.92	12.90	12.36	12.68	13.92	0.17	110.43
27	George R. Evans.....	8.67	25.47	26.10	14.05	12.84	11.36	12.52	0.70	110.31
28	Glennie Tarbox.....	11.10	25.74	24.48	15.00	12.28	11.84	11.52	1.69	110.27
29	William W. Gilmer.....	11.49	23.49	25.02	14.40	11.24	11.12	13.52	0.17	110.11
30	Harry Friedlander.....	8.70	29.16	25.83	14.30	11.88	11.04	9.60	1.53	108.98
31	James E. Shindel.....	8.97	24.93	25.29	14.30	13.08	11.32	11.20	0.84	108.25
32	Arthur H. Dutton.....	9.93	24.12	25.20	13.60	12.64	12.28	10.84	1.10	107.51
33	Albert Burnstine.....	9.09	24.66	25.38	13.40	11.68	11.52	11.40	1.60	105.53
34	George B. Tennant.....	8.82	24.66	25.47	12.35	12.12	11.84	11.68	1.61	105.33
35	Charles M. Corpening.....	8.16	23.58	25.47	15.00	11.80	11.80	10.56	1.18	105.19
36	Benjamin Wright.....	8.83	23.40	24.30	12.45	12.72	11.40	11.40	0.57	103.98
37	Preston H. Uberroth.....	8.58	24.66	24.21	12.95	11.72	10.80	11.24	0.59	103.57
38	Harry B. Mulford.....	7.98	23.13	22.86	12.55	12.72	11.32	13.00	0.20	103.36
39	Louis D. Ferris.....	7.98	22.86	24.84	12.85	12.04	11.12	10.84	1.19	101.34
40	Robert B. Howell.....	9.24	22.14	22.50	13.35	12.72	10.40	11.76	1.32	100.79
41	Samuel E. Pitner.....	8.52	21.69	23.67	14.05	10.56	11.20	11.32	0.54	100.47
42	Julius M. Dashiell.....	7.86	22.05	25.11	12.35	11.68	10.88	10.72	1.65	99.00
43	James T. Bootes.....	6.63	22.50	22.68	12.90	11.43	10.48	12.28	1.46	97.49
44	Richard T. Shipley.....	9.39	20.61	22.95	13.20	11.72	10.35	10.08	1.71	96.60
†	Charles M. McCormick.....	8.88	25.20	21.78	13.20	11.76	10.48	14.64	0.47	105.47
†	Webster A. Edgar.....	8.34	21.69	22.05	12.50	11.16	15.92	10.24	1.76	100.14
†	John C. P. DeKrafft.....	9.90	21.96	19.98	10.05	11.64	11.36	10.28	0.73	94.44
†	Benjamin Jacobs.....	7.83	20.25	21.24	10.40	10.96	12.68	10.48	0.83	93.01

Merit-roll of the naval cadets of the fourth class (49 members), at the annual examination, June, 1883.

Order of annual merit.	Name.	Algebra and geometry.	English and history.	French.	Drawing.	Conduct.	Aggregate.
	Maxima.....	25	24	20	4		76
1	Frederic N. Kress.....	23.34	21.54	19.15	3.22	0.14	69.11
d2	Franklin Moeller.....	24.57	20.40	20.25	3.63	0.38	68.47
3	Frederic Parker.....	24.71	19.86	18.85	3.40	0.60	66.22
4	Ryland D. Tisdale.....	21.77	19.08	19.65	3.01	0.27	63.24
5	Samuel M. Strite.....	24.43	20.10	15.25	2.93	0.15	62.56
6	Joseph W. Oman.....	20.93	21.54	16.25	3.42	0.06	62.08
7	Willard L. Dodd.....	21.98	21.12	15.65	3.49	0.31	61.93
8	Edward T. Witherspoon.....	19.67	22.02	16.45	3.07	0.10	61.11
9	George F. Hawk.....	24.36	20.22	13.35	3.06	0.31	60.68
10	William H. G. Bullard.....	22.12	20.58	14.80	3.29	0.20	60.59
11	William H. Caldwell.....	23.31	19.26	14.85	2.86	0.26	60.02
d12	Charles E. Hawkes.....	22.47	19.50	15.30	2.93	0.33	59.87
13	Harrold K. Hines.....	21.85	20.82	15.05	2.79	0.22	59.79
14	George Breed.....	21.91	19.62	15.20	3.42	0.48	59.67
d15	Benjamin Trapnell.....	20.23	20.64	17.05	2.45	1.00	59.37
16	John W. Stearns.....	18.06	18.84	19.00	3.63	0.76	58.77
17	George F. Cooper.....	19.39	20.28	16.55	2.58	0.08	58.72
d18	Ellsworth P. Bertholf.....	23.66	17.52	15.40	2.79	1.15	58.22
19	William H. Foust.....	19.74	19.38	15.25	3.73	0.18	57.92
d20	Archibald Campbell.....	21.63	17.34	16.60	2.60	1.12	57.05
21	David M. Young.....	18.62	19.32	16.70	2.63	0.30	57.02
22	Philip Andrews.....	21.14	18.54	14.35	3.11	0.16	56.98
23	Edwin Van D. Johnson.....	21.91	18.72	13.35	2.51	0.49	56.00
24	Francis A. Levis.....	18.83	19.32	13.60	3.25	0.13	54.87
25	Harry E. Rumsey.....	20.30	17.94	14.60	3.06	1.06	54.84
26	John G. Berry.....	18.83	18.12	15.50	2.92	0.55	54.82
27	Cornelius C. Billings.....	19.46	16.44	14.60	3.40	0.26	53.64
28	John N. Griswold.....	20.02	17.82	13.15	2.92	0.92	52.99
29	George B. Reilly.....	17.64	18.54	14.25	2.63	0.08	52.98
30	John T. McMillan.....	19.95	15.90	14.30	2.71	0.16	52.70
d31	James R. Tuggle.....	18.55	17.76	13.85	2.58	0.30	52.44
32	Friend W. Jenkins.....	19.25	16.14	15.25	2.82	1.04	52.42
d33	Claire B. Bird.....	19.46	17.04	12.90	2.45	0.72	51.13
34	Chester L. Caldwell.....	17.85	16.68	13.30	3.45	0.21	51.07
35	Clinton L. Hall.....	17.78	16.98	13.70	2.79	0.51	50.74
36	Frank D. Webster.....	17.71	15.60	13.65	2.72	0.38	49.30
37	Samuel B. Winram.....	17.99	15.72	12.85	2.78	0.33	49.01
‡	William C. Francis.....	17.29	19.14	14.05	2.66	0.63	52.51
†	Edward Moale.....	15.33	17.28	15.75	2.61	0.25	50.72
‡	Jerome Van Keuren.....	16.59	15.30	14.70	3.62	0.36	49.85
†	William J. Murray.....	16.73	17.34	13.30	2.55	0.24	49.68
†	Jasper C. Salter.....	15.47	17.40	13.80	2.38	0.24	49.31
†	Samuel E. Darby.....	15.96	16.68	14.10	2.68	0.20	49.22
†	William S. La Tourrette.....	16.10	17.04	12.90	2.53	0.14	48.43
‡	Clarence M. Stone.....	16.87	15.18	12.65	3.36	1.24	46.82
‡	John J. Martin.....	16.38	15.78	12.35	2.70	0.68	46.53
r	John P. Knettles.....	16.38	15.54	12.65	2.38	1.34	45.61
r	Walter R. Allen.....		12.48		2.53		
a	Samuel W. Irwin.....						

d Dismissed for "hazing," September, 1883.

r Resigned.

REGULATIONS

GOVERNING

THE ADMISSION OF CANDIDATES INTO THE NAVAL ACADEMY AS NAVAL CADETS.

NOMINATIONS.

I. The students at the Naval Academy shall be styled *Naval Cadets*.—(*Rev. Stat.*, § 1512, and act of Congress approved August 5, 1882.)

II. There shall be allowed at said Academy one Naval Cadet for every Member or Delegate of the House of Representatives, one for the District of Columbia, and ten at large.—(*Rev. Stat.*, § 1513, and act of Congress approved June 17, 1878.)

III. "The Secretary of the Navy shall, as soon after the fifth of March in each year as possible, notify, in writing, each Member and Delegate of the House of Representatives of any vacancy that may exist in his district. The nomination of a candidate to fill said vacancy shall be made upon the recommendation of the Member or Delegate, if such recommendation is made by the first day of July of that year; but if it is not made by that time, the Secretary of the Navy shall fill the vacancy. The candidate allowed for the District of Columbia and all the candidates appointed at large shall be elected by the President."—(*Rev. Stat.*, § 1514.)

IV. "Candidates allowed for Congressional districts, for Territories, and for the District of Columbia must be actual residents of the districts or Territories, respectively, from which they are nominated. And all candidates must, at the time of their examination for admission, be between the ages of fourteen and eighteen years, and physically sound, well-formed, and of robust constitution."—(*Rev. Stat.*, § 1517.)

V. Candidates who may be nominated in time to enable them to reach the Academy by the fifteenth of May will receive permission to present themselves on that date to the Superintendent for examination for admission. Those who may not be nominated in time to present themselves at the May examination will be examined on the first of September following.

When either of the above dates shall fall on Sunday the candidates shall present themselves on the Monday following.

EXAMINATION.

VI. "All candidates for admission into the Academy shall be examined according to such regulations and at such stated times as the Secretary of the Navy may prescribe. Candidates rejected at such examination shall not have the privilege of another examination for admission to the same class unless recommended by the Board of Examiners."—(*Rev. Stat.*, § 1515.)

VII. "When any candidate who has been nominated upon the recommendation of a Member or Delegate of the House of Representatives is found, upon examination, to be physically or mentally disqualified for admission, the Member or Delegate shall be notified to recommend another candidate, who shall be examined according to the provisions of the preceding section."—(*Rev. Stat.*, § 1516.)

VIII. Candidates will be examined physically by a board composed of three medical

officers of the Navy ; any one of the following conditions will be sufficient to cause the rejection of a candidate; viz.,

- Feeble constitution, inherited or acquired ;
- Greatly retarded development ;
- Permanently impaired general health ;
- Decided cachexia, diathesis, or predisposition ;
- All chronic diseases or results of injuries that would permanently impair efficiency viz.,
- Weak or disordered intellect ;
- Cutaneous and communicable diseases ;
- Unnatural curvature of spine, torticollis, or other deformity ;
- Permanent inefficiency of either of the extremities or articulations from any cause ;
- Epilepsy or other convulsions within five years ;
- Impaired vision, chronic disease of the organs of vision, imperfect color sense ; (visual ; acuteness must not fall below eleven-twentieths of the normal in either eye) ;
- Great hardness of hearing or chronic disease of the ears ;
- Chronic nasal catarrh, ozæna, polypi, or great enlargement of the tonsils ;
- Impediments of speech to such an extent as to impair efficiency in the performance of duty ;
- Chronic diseases of heart or lungs or decided indications of liability to cardiac or pulmonary affections ;
- Hernia or retention of testes in inguinal cavity ;
- Sarcocele, hydrocele, stricture, fistula, or hæmorrhoids ;
- Large varicose veins of lower limbs, scrotum, or cord ;
- Chronic ulcers.

Attention will also be paid to the stature of the candidate, and no one *manifestly* under size for his age will be received at the Academy. In the case of doubt about the physical condition of the candidate, any marked deviation from the usual standard of height will add materially to the consideration for rejection. Five feet will be the minimum height for the candidate.

IX. Candidates will be examined mentally by the Academic Board in reading, writing, spelling, arithmetic, geography, English grammar, history, and algebra. All the examinations, except in reading, will be written. Deficiency in any one of these subjects will be sufficient to insure the rejection of a candidate.

GENERAL CHARACTER OF THE EXAMINATION.

READING.—In *Reading*, candidates must be able to read understandingly, and with proper accent and emphasis.

WRITING AND ORTHOGRAPHY.—In *Writing and Orthography*, they must be able to write, from dictation, sentences from standard pieces of English literature, both prose and poetry, sufficient in number to test their qualifications both in handwriting and orthography.

X. ARITHMETIC.—The candidate will be required—

To express in figures any whole, decimal, or mixed number; to write in words any given number; to perform with facility and accuracy the various operations of addition, subtraction, multiplication, and division of whole numbers whether abstract or compound, and to use with facility the tables of money, weight, and measures in common use, including English money.

To reduce compound numbers from one denomination to another, and to express them as decimals, or fractions of a higher or lower denomination; to state the number of cubic inches in a gallon and the relation between the Troy and Avoirdupois pounds, and to reduce differences of time to differences of longitude and *vice versa*.

To define prime and composite numbers; to give the tests of divisibility by 3, 5, 8, 9,

11, 25, and 125; to resolve numbers into their prime factors, and to find the least common multiple and the greatest common divisor of large as well as of small numbers.

To be familiar with all the processes of common and decimal fractions, and to give clearly the reasons for such processes, and to be able to use the contracted methods of multiplication and division given in the ordinary text-books on Arithmetic.

To define ratio and proportion, and to solve problems in simple and compound proportion.

To solve problems involving the measurement of rectangular surfaces and solids, to find the square and cube roots of numbers, and to solve simple problems under percentage, interest, and discount.

The candidates are required to possess such a thorough understanding of all the fundamental operations of Arithmetic as will enable them to apply the various principles to the solution of any complex problem which can be solved by the methods of Arithmetic; in other words, they must possess such a complete knowledge of Arithmetic as will enable them to proceed at once to the higher branches of Mathematics without further study of Arithmetic.

ALGEBRA.—The examination in *Algebra* will be elementary in character, and will be limited to questions and problems upon the fundamental rules, factoring, algebraic fractions, and simple equations of one or more unknown quantities; the questions will be drawn entirely from Ray's *Higher Algebra*, pages 11 to 111.

GRAMMAR.—In *English Grammar* candidates must exhibit a familiarity with all the parts of speech and the rules in relation thereto; must be able to parse any ordinary sentence given to them, and generally must understand those portions of the subject usually taught and comprehended under the heads of Orthography, Etymology, Syntax and Prosody.

The examination will be either written or oral, or partly written and partly oral. The questions will usually be arranged in three divisions. The first division will contain questions somewhat like these:

Explain the uses of the objective case. What verbs have distinction of voice? Give the possessive plural of sea, valley, basis, stratum, bandit.

The second division will contain one or more sentences to be parsed, e. g.:

"They were always a strange family; they rarely acted like other people; their hearts were in the right place, but their heads always seemed to be doing anything but what they ought." Such a sentence must be parsed *fully*, giving the part of speech, and kind, case, voice, mood, tense, number, person, degree of comparison, etc., as the case may be, of each word, and its relation to the other words, thus:

Strange is a descriptive adjective, positive degree. It qualifies the noun *family*.

Comparative, *stranger*.

Superlative, *strangest*.

Acted, an intransitive verb, regular (or weak) in conjugation, indicative mood, past tense, third person, plural number. Its subject is *they*.

The third division will contain a large number of incorrect sentences to be corrected, thus:

My brother lives most all of nine miles from Topcka; it's sort of lonesome out there, and I reckon he don't like it much. You see it's considerable of a ways to go, but I'd as lives go as not. Among these, correct sentences will sometimes be introduced to more thoroughly test the knowledge of the candidate.

Since the school grammars used in different parts of the country vary among themselves in their treatment of certain words, an answer indorsed by any grammar of good repute will be accepted.

GEOGRAPHY.—Candidates will be required to pass a satisfactory examination, written or oral, or both, in descriptive geography, particularly of our own country. Questions will be given under the following heads: The definition of latitude and longitude; the

zones; the grand divisions of the land and water; the character of coast-lines; the direction and position of important mountain-chains and the locality of the higher peaks; the position and course of the principal rivers, their tributaries, and the bodies of water into which they empty; the position of important seas, bays, gulfs, and arms of the sea; the position of independent States, their boundaries and capital cities; the position and direction of great peninsulas and the situation of important and prominent capes, straits, sounds, channels, and the most important canals; great lakes and inland seas; position and political connection of important islands and colonial possessions; locality of cities of historical, political, or commercial importance (attention is especially called to the rivers and bodies of water on which cities are situated); the course of a vessel in making a voyage between well known sea-ports.

The candidate's knowledge of the geography of the *United States* cannot be too full or specific on all the points referred to above. Accurate knowledge will also be required of the position of the country with reference to other States, and with reference to latitude and longitude; of the boundaries and relative position of the States and Territories, and of the name and position of their capitals, and of other important cities and towns.

HISTORY.—Candidates should be familiar with so much of the History of the United States as is contained in the ordinary school histories.

The examination will be either written or oral, or both, and questions of the same general character as the following will be given:

1. Name the earliest European settlements within the present limits of the United States and fix their position. When and by whom were these settlements made?
2. Explain the three forms of government in the colonies, royal, proprietary, and charter. Name the colonies that originally existed within the present limits of Massachusetts; of Connecticut. When were those colonies united? What did the colony of Pennsylvania include? When was it divided?
3. State the leading events of the colonial wars, and give the results of each war.
4. What were the remote and the immediate causes of the Revolution? Explain the navigation acts, the stamp act, writs of assistance. Name the principal battles and other leading events in the wars of the United States, giving the names of commanding officers and stating the results of the battles.
5. Give an account of the formation and adoption of the Constitution.
6. Give the names of the Presidents, in order, and the leading events in each administration.

ADMISSION.

XI. Candidates who pass the physical and mental examinations will receive appointments as Naval Cadets, and become inmates of the Academy. Each Cadet will be required to sign articles by which he binds himself to serve in the United States Navy eight years (including his time of probation at the Naval Academy), unless sooner discharged. The pay of a Naval Cadet is \$500 a year, commencing at the date of his admission.

XII. Cadets, immediately after their admission, will supply themselves with the following articles; viz.,

One parade suit	\$30 25	Two pairs high shoes	\$11 50
One undress suit	18 75	One pair overshoes	1 63
Two working suits	2 34	*Eight white shirts	10 00
One overcoat	22 00	*Three nightshirts	2 25
One rubber coat	4 00	*Four undershirts	3 00
One pair rubber leggings	1 05	Twelve linen collars	1 68
Two pairs white duck leggings	2 34	Eight pairs cuffs	2 00
One rubber hat	53	Four pillow-cases	1 00
One parade cap	3 43	*One tooth-brush	25
One undress cap	1 45	*One hair-brush	70

*One whisk-----	\$0 18	One hair pillow-----	\$0 93
*One coarse comb-----	11	One pair blankets-----	4 38
*One fine comb-----	33	Two bedspreads-----	2 30
One mug-----	10	Six sheets-----	3 84
*One cake soap-----	10	One pass-book-----	53
One soap-box-----	62	One stencil, ink, and brush-----	48
One requisition-book-----	30	One bottle indelible ink-----	18
One laundry-book-----	29	One rug-----	1 55
*Eight pairs socks-----	2 00	One wash-basin and pitcher-----	1 05
*Four pairs drawers-----	3 00	One looking-glass-----	95
*Twelve white handkerchiefs-----	3 00	One slop-jar-----	1 19
*Eight towels-----	2 00	One broom-----	27
One pair drill gloves-----	1 00	Twospatter-cloths-----	1 56
Six pairs white thread gloves-----	1 62	One oil-cloth-----	63
*One pair suspenders-----	40	One jack-knife-----	43
Two black silk neck-ties-----	80	One paper-weight-----	45
Two clothes-bags-----	60		
One hair mattress-----	6 68	Total-----	165 32
One straw mattress-----	1 32		

The articles marked *, not being required to conform to a standard pattern, may be brought by the Cadet from home, but all other articles must conform to the regulations and must, therefore, be supplied by the storekeeper.

Each Naval Cadet must, on admission, deposit with the paymaster the sum of \$20, for which he will be credited on the books of that officer, to be expended, by direction of the Superintendent, in the purchase of text-books and other authorized articles besides those enumerated in the preceding article.

All the deposits for clothing and the entrance-deposit of \$20 must be made before a candidate can be received into the Academy.

SUMMARY OF EXPENSES.

Deposit for clothing-----	\$165 32
Deposit for books, &c-----	20 00
Total deposit required-----	185 32

The value of clothing brought from home is to be deducted from this amount.

Each Naval Cadet, *one month after admission*, will be credited with the amount of his actual expenses in traveling from his home to the Academy.

XIII. A Naval Cadet who voluntarily resigns his appointment within a year of the time of his admission to the Academy will be required to refund the amount paid him for traveling expenses.

WILLIAM E. CHANDLER,
Secretary of the Navy.

COURSE OF INSTRUCTION.

DEPARTMENT OF SEAMANSHIP, NAVAL TACTICS, AND NAVAL CONSTRUCTION.

FIRST AND SECOND TERMS.

Class.	Recitations per week.	Number of months.	Subjects.	Text books.
1	4	4	NAVAL CONSTRUCTION, SEAMANSHIP, AND NAVAL TACTICS:	
1	5	4	<p>Wooden ship building; iron ship building; sheathing of ships; composite ships; launching; docks; docking; heaving down.</p> <p>Rigging ships; fitting ships for sea; stowage; bending and unbending sails; evolutions; duties of officers; repairs to rigging and spars; emergencies; organization; fitting and management of boats.</p> <p>Rules of the road; laws of storms</p> <p>Orders of steaming; fleet manœuvres</p> <p>Signaling</p>	<p>Wilson's Ship Building; Thearle's Naval Architecture; Reid's Ship Building.*</p> <p>Luce's Seamanship.</p> <p>Navy Department Pamphlets</p> <p>Parker's Fleet Tactics.</p> <p>Signal Books.</p>

* Reference book.

SPECIAL PRACTICAL INSTRUCTION THROUGHOUT THE YEAR DURING DRILL PERIODS.

SECOND CLASS.

Shifting spars and sails; working anchors and cables; stowage; fitting and management of boats and steam launches.

THIRD CLASS.

Cutting and fitting rigging (hemp and wire); rigging and stripping ship; making up, bending, unbending, and handling sails; sail making.

FOURTH CLASS.

Rigging loft; marline-spike seamanship; compass; lead and line; ship nomenclature.

GENERAL PRACTICAL INSTRUCTIONS THROUGHOUT THE YEAR DURING DRILL PERIODS, ALL CLASSES.

Exercises with spars and sails; getting under way and anchoring; evolutions with sailing vessel and steamer; fleet manœuvres with steam launches, boats under oars, and boats under sail; signals, day and night; Navy, International, and Myer's codes.

DEPARTMENT OF ORDNANCE AND GUNNERY.
FIRST TERM.

Class.	Recitations per week.	Number of months.	Subjects.	Text-books.
1	3	4	<p>ORDNANCE INSTRUCTIONS: Handling great guns; preparing ship for action; duties of officers and men when at quarters for exercise, and when engaged in battle.</p> <p>Handling boat howitzers and machine guns, afloat and on shore.</p> <p>Landing of seamen and marines.</p> <p>INFANTRY TACTICS: School of the soldier; manual of small arms; school of the company; school of the battalion; instructions for skirmishers.</p> <p>THEORY AND PRACTICE OF GUNNERY: Metallurgy of gun metals; description and use of furnaces; manufacture of wrought iron, of steel and of bronze; strength and characteristics of gun metals; fabrication of guns and projectiles; inspection of ordnance; manufacture and use of explosives and fuses; pyrotechny; instruction in measuring the specific gravity, elasticity, and strength of the various gun-metals; pointing and sighting guns.</p>	<p>Ordnance Instructions.</p> <p>Upton's Tactics.</p> <p>Cooke's Naval Ordnance and Gunnery.</p>

SECOND TERM.

1	5	4	<p>THEORY AND PRACTICE OF GUNNERY: Rifled ordnance; relation between angle and spiral and twist of rifling; velocity and energy of translation and rotation; moments of inertia and radius of gyration; pressure necessary to give rotation to projectiles; energy of recoil; explosion and pressure in the bore of a gun; resistance to the motion of a projectile in the bore of a gun; resistance due to friction; limit of pressure in the bore; work done by a charge of powder in connection with muzzle velocity and pressure in the bore; windage; position of the vent; resistance to the motions of projectiles in the air; theory of the motion of projectiles in vacuo and in air; computation of range, distance, and velocity tables; solution of practical problems; drift of elongated projectiles; penetration of projectiles; defensive armor.</p> <p>THE THEORY OF THE CONSTRUCTION OF ORDNANCE: Conditions of resistance of single tubes; of built-up tubes of the same and of different metals; application of the theory.</p> <p>Accuracy and probability of fire; the probability of hitting a target of given dimensions.</p> <p>THE THEORY OF EXPLOSIVE ACTION:</p> <p>PRACTICAL EXERCISES: Instruction in the use of service torpedoes; electrical firing.</p>	<p>Mackinlay's Principles of Gunnery. Rifled Ordnance.</p> <p>Virgile's Construction of Ordnance.</p> <p>Briger's Probability of Hitting an Object.</p> <p>Sarraud on Explosives.</p>
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PRACTICAL EXERCISES THROUGHOUT THE YEAR DURING DRILL-PERIODS.

Exercises with broadside guns, pivot guns, monitor guns, mortars, boat howitzers and machine guns, afloat and ashore; target practice; handling and firing torpedoes; determination of initial velocities; broad-sword exercise; small-sword exercise; artillery tactics; infantry tactics.

DEPARTMENT OF ASTRONOMY, NAVIGATION, AND SURVEYING.

FIRST TERM.

Class.	Recitations per week.	Number of months.	Subjects.	Text-books.
1	6	4	<p>THE CELESTIAL SPHERE: Spherical and rectangular co-ordinates; use of instruments, especially those for determining terrestrial latitudes and longitudes; refraction; dip; parallax; the earth, sun, planets, and solar system in general; different units of time, and calendars; law of universal gravitation, precession, nutation, and aberration; the moon; eclipses and occultations; tides; nebular hypothesis; comets and meteoric bodies; fixed stars, nebulae, and motion of the solar system; solutions of the astronomical triangle: use of the Nautical Almanac.</p> <p>THE THEORY AND PRACTICE OF NAVIGATION, the latter including instruction in the duties of the navigator, the construction and use of navigating instruments, the use of the tables and solution of problems; determination of meridian distances.</p>	<p>White's Astronomy; Chauvenet's Spherical and Practical Astronomy; Bowditch's Navigator; American Ephemeris and Nautical Almanac.</p> <p>Coffin's Navigation; Notes on Navigation and Meridian Distances.</p>

SECOND TERM.

1	5	4	<p>THEORY OF DEVIATION OF THE COMPASS, including the derivation and transformation of the fundamental equations, the nature and causes of the several parts of deviation, the determination of the vertical and horizontal forces of the earth and ship, and of the values of the approximate and exact coefficients, the causes and amount of the heeling error, the changes which take place upon a change of geographical position, the graphic representations of the amount and direction of the forces which act on the needle, and the mechanical correction of the deviation and heeling errors. Navigation concluded.</p>	<p>Howell's Theory of the Deviations of the Compass; Evans' Elementary Manual for the Deviations of the Compass in Iron Ships.</p>
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Department of Astronomy, Navigation, and Surveying—Continued.

SECOND TERM—Continued.

Class.	Recitations per week.	Number of months.	Subjects.	Text-books.
1	5	4	SURVEYING: The instruments used; selection and measurement of bases; determination of azimuth of base; triangulation; determination of heights; leveling; plotting a survey; hydrographical surveying, including the Coast Survey methods; tidal observations; current observations; sailing directions; the form of the earth, with special reference to the construction of charts; projection by development; Mercator's, Flamsteed's, and Bonne's projections; the ordinary polyconic projection of the United States Coast Survey; running surveys; portable transit instrument and zenith telescope. Astronomy concluded.	Chauvenet's Spherical and Practical Astronomy; Howell's Marine Surveying; Projection Tables, United States Navy; Bowditch's Navigator.

PRACTICAL EXERCISES DURING THE ACADEMIC YEAR.

Survey of a portion of the Severn River and its projection as a chart. Practical instruction by experiments with an iron vessel attached to the Academy. Practical navigation.

On Friday evenings during March, April, and May, lectures or practical instruction for the second class.

DEPARTMENT OF STEAM ENGINEERING.

FIRST AND SECOND TERMS.

Class.	Recitations per week.	Number of months.	Subject.	Text-books.
2	4	4	MARINE ENGINES AND BOILERS: Explanation of all the parts of the engine; types of engines; steam valves and other valves; generation of steam; distribution and expansion of steam; screw propellers and side-wheels; the indicator and its diagrams; power of an engine and computations relating thereto; hydrometers; saturation; scale and its prevention; casualties; boilers; materials; combustion; transfer of heat; testing steam-engines; principles of mechanism.	King's Lessons and Notes on the Steam-Engine; Northcott's Steam-Engine; Good-eve's Elements of Mechanism.
2	4	3½		

PRACTICAL INSTRUCTION THROUGHOUT THE YEAR DURING DRILL-PERIODS.

Vise-bench work; forging; boiler-making; pattern-making; machine-tool work; taking apart and putting together engines; running engines of launches, vessels, and monitors (motive and turret).

On Friday evenings during March, April, and May, lectures or practical instruction for the first class.

DEPARTMENT OF MECHANICS AND APPLIED MATHEMATICS.

FIRST TERM.

Class.	Recitations per week.	Number of months.	Subjects.	Text-books.
2	5	2	DIFFERENTIAL CALCULUS: Functions; rates; differentials of functions; indeterminate forms; series; maxima and minima; geometrical applications; functions of two or more variables.	Rice and Johnson's Differential Calculus.
2	5	2	INTEGRAL CALCULUS: The methods of integration; definite integrals; quadrature of surfaces; cubiture of volumes; rectification of curves; centres of gravity; moments of inertia; planimeters; rules for the approximate determination of areas and volumes; differential equations.	Johnson's Integral Calculus.
1	3	1	METHOD OF LEAST SQUARES: The theory of least squares and probable errors; fundamental principles of the theory; practical methods and formulas; independent observations; conditioned observations.	Merriman's Method of Least Squares.
1	3	3	APPLIED MECHANICS: Elasticity; stress and strain; theory of structures; strength and deflection of beams; beams of uniform resistance.	Burr's Elasticity and Resistance of Materials.

SECOND TERM.

2	5	4	MECHANICS: Kinematics; dynamics; kinetics; hydro-mechanics; the motion of projectiles; friction and other resistances; the application of mechanical principles to simple machines and to instruments.	Bartlett's Mechanics; Walton's Problems in Elementary Mechanics.*
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* Reference book.

DEPARTMENT OF PHYSICS AND CHEMISTRY.

FIRST TERM.

Class.	Recitations per week.	Number of months.	Subjects.	Text-books.
2	5	4	PHYSICS: Properties of sound; atmospheric and other vibrations; properties of light; optical instruments; double refraction; polarization. Lectures. HEAT: Temperature, and its measurement by thermometers; dilatation of solids, liquids, and gases; application of the laws of dilatation; changes of state, liquefaction, and solidification; production of vapor and its condensation; effect of heat upon other properties of matter; radiant heat and its reflection and radiation; theory of exchanges; conduction and convection; specific and latent heat; relation between heat and mechanical effect; thermodynamics. Lectures.	Ganot's Physics. Balfour Stewart's Elementary Treatise on Heat.

Department of Physics and Chemistry—Continued.

SECOND TERM.

Class.	Recitations per week.	Number of months.	Subjects.	Text-books.
3	5	4	PHYSICS: Force and motion; gravitation and molecular attraction; hydrostatics; pneumatics. CHEMISTRY: Aim and scope of chemistry; the atmosphere; oxygen, nitrogen, water, and hydrogen; nitric and chlorhydric acids; acids, bases, and salts; chlorine group; sulphur and phosphorus, and their compounds. Laws of Avogadro, Charles, and Mariotte; formulas; basicity; notation and nomenclature; arsenic, antimony, and bismuth; combustion; carbon and its compounds, boron and silicon; the alkali group; the calcium group; magnesium and zinc; the sesquioxide group; copper, mercury, and tin; gold and platinum; atomic weights. Practical work in the chemical laboratory. Lectures.	Ganot's Physics. Eliot and Storer's Elementary Manual of Chemistry. Lecture notes.
2	5	4	ELECTRICITY AND MAGNETISM: Frictional electricity; magnetism; current electricity; electrostatics; electromagnetics; measurement of currents; heat, light, and work from electric currents; thermo-electricity; induction currents; electro-chemistry; telegraphs and telephones. Electrical machines: potential; electrometers; theory of absolute measurement; specific inductive capacity; measurement of resistances. Practical lessons with batteries; practical work with electrical and dynamo-machines; measurement of resistances; galvanometers; determination of dip and intensity; use of magnetometer. Fox dip-circle; absolute electrometer; dynamometer, and secondary batteries. Testing oils and paints. Lectures on metallurgy of gun-metals, and on theory and action of explosives. Practical exercises in the laboratory illustrating the formation and action of explosives.	Thompson's Electricity and Magnetism. Kempe's Hand-Book of Electrical Testing. Day's Exercises in Electrical Measurement. Day's Electric Light Arithmetic. Kohlrausch's Physical Measurements.*

Friday evenings, during March, April, and May, lectures or practical instruction for third class.

DEPARTMENT OF MATHEMATICS.

FIRST TERM.

Class.	Recitations per week.	Number of months.	Subjects.	Text-books.
4	4	4	ALGEBRA: Fundamental operations; reduction and conversion of fractional and surd quantities; reduction and solution of equations of the first and second degrees; inequalities; involution and evolution.	Ray's Higher Algebra; Todhunter's Algebra.*
4	2	4	GEOMETRY: Geometry of the straight line, the circle, and the plane; theory of proportion; properties of similar figures.	Chauvenet's Geometry.

* Reference books.

Department of Mathematics—Continued.

FIRST TERM—Continued.

Class.	Recitations per week.	Number of months.	Subjects.	Text-books.
3	1	4	DESCRIPTIVE GEOMETRY: Orthographic projections; representation of points, lines, and planes; problems relating to the right line and plane; representations of surfaces of the second order.	Church's Descriptive Geometry.
3	4	4	TRIGONOMETRY: Measures of arcs and angles; trigonometric functions; analytical investigation of trigonometric formulas, with their application to all the cases of plane and spherical triangles; construction and use of trigonometric tables; inverse trigonometric functions; De Moivre's theorem; solution of trigonometric equations; practical applications of trigonometry in the solution of plane and spherical triangles, the astronomical triangle, and the measurements of heights and distances.	Chauvenet's Trigonometry; Todhunter's Trigonometry; Bowditch's Useful Tables.*

SECOND TERM.

4	3	4	ALGEBRA: Course for first term continued. Development of algebraic functions by means of indeterminate coefficients and the binomial theorem; permutations and combinations; summation of series; continued fractions; logarithms; exponential equations; theory of equations, including the solution of numerical equations.	Ray's Higher Algebra. Todhunter's Algebra.* Bowditch's Useful Tables.*
4	2	4	GEOMETRY: Course for first term continued..... Spherical geometry; the cone and the cylinder; mensuration of rectilinear figures, and of the sphere, cone, and cylinder; application of algebra to determinate geometry.	Chauvenet's Geometry.
3	1	4	DESCRIPTIVE GEOMETRY: Course for first term continued. Warped surfaces, and surfaces of revolution; development of single-curved surfaces; intersection of surfaces; tangent lines and planes; projections of the sphere; axometric projections; shades and shadows.	Church's Descriptive Geometry.
3	4	4	ANALYTICAL GEOMETRY: Equations of the straight line and of the conic sections; transformation of co-ordinates; properties of the conic sections; equations to tangents and normals; determination of loci; discussion of the general equation of the second degree; equations of the plane, of lines in space, and of surfaces of the second order; principal properties of surfaces of the second order; discussion of the general equation of the second degree in three variables.	Todhunter's Conic Sections and Aldis's Solid Geometry.

* Reference book.

DEPARTMENT OF ENGLISH STUDIES, HISTORY, AND LAW.

FIRST TERM.

Class.	Recitations per week.	Number of months.	Subjects.	Text-books.
4	2	4	ENGLISH: The structure and historical development of the English language; punctuation and capitals; exercises in the composition of letters.	Lounsbury's History of the English Language; Hart's Punctuation; Webster's Dictionary.*
4	3	4	HISTORY: Outlines of history, especially the history of Greece and Rome, and of the states of Western Europe down to 1880; historical geography; important points in naval history, by notes or lecture.	Freeman's General Sketch of History; Labberton's Historical Atlas.*
3	3	1	ENGLISH: Classification of words; definition of words by usage and by derivation; synonyms; laws of change in the meaning of words; faults in diction and their remedies; selection and arrangement; elementary principles of reasoning; principles of composition; exercises in the composition of official dispatches, letters, and telegrams. Themes.	Abbott and Seeley's English Lessons for English People; Abbott's How to Write Clearly; <i>Agnes's Verbalist; Agnes's Orthoepist.</i>
3	2	3		
3	2	1	HISTORY: Contemporary history, including the comparative study of governments, institutions, and political geography.	The School Herald; Martin's Statesman's Year Book; Mitchell's Atlas.*
3	1	3		
3	2	3	LAW: Constitution of the United States.	Andrews's Manual of the Constitution.

SECOND TERM.

4	2 3	4	ENGLISH: Rhetoric and composition; choice and use of words; kinds of composition; narration and description; argumentative composition; exercises in the composition of letters and telegrams. Themes.	Hill's Rhetoric.
4	3 2	4	HISTORY: Progress of colonial development in America, and the history of the United States; important points in the naval history of the United States, by notes or lectures.	El ^x liot's History of the United States; Mitchell's Atlas.*
2	2	4	INTERNATIONAL LAW: The rights and duties of States; the powers and duties of diplomatic envoys, consuls, and naval commanders; nationality, as to persons and as to vessels; jurisdiction over vessels, at sea and in territorial waters; the relations of ships of war, at sea and in foreign ports; fugitives and deserters; the laws of war; hostile measures falling short of war; privateers; the rights and duties of neutrals; enemy's property, on land and at sea; the right of search; prizes; blockade; contraband; licenses to trade; recapture; treaty of peace.	Woolsey's International Law.

* Reference books.

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DEPARTMENT OF MODERN LANGUAGES.

FIRST TERM.

Class.	Recitations per week.	Number of months.	Subjects.	Text-books.
4	5	4	FRENCH: Robertson's Method; reading and translating "Le Conscrit."	Robertson's French Course; Keetels' Grammar;* Gasc's Dictionary;* Le Conscrit de 1813.
3	5	4	FRENCH: Reading and translating French comedy; sea terms and phrases, and conversation thereon; three periods a week. Written translations from English into French, or themes; two periods a week.	Bôcher's Series of French plays; Pornain's Sea Terms; Keetels' Grammar;* Gasc's Dictionary.*
3	1	4	SPANISH: Robertson's method; sea terms and phrases, and conversations thereon. [Given as an advanced course.]	Robertson's Spanish Course.

SECOND TERM.

4	5½	4	FRENCH: Reading and translating "Le Conscrit"; three periods a week. Written translations from English into French, two periods a week; the Saturday period to be devoted chiefly to dictation.	Le Conscrit de 1813; Keetels' Grammar;* Gasc's Dictionary.*
4	2	4	SPANISH: Robertson's method. [Given as an advanced course.]	Robertson's Spanish Course.

* Reference books.

DEPARTMENT OF DRAWING.

FIRST TERM.

Class.	Recitations per week.	Number of months.	Subjects.	Text-books.
3	1	4	MECHANICAL DRAWING: Use of instruments; preliminary construction to scale, of rectilinear and curved figures; inking in; drawing section lines.	Thompson's Mahan's Industrial Drawing.*
2	2	4	MECHANICAL DRAWING: Practice in drawing ordnance, ordnance accessories, and various implements, apparatus, and machinery used in the naval service.	

SECOND TERM.

3	5½†	4	MECHANICAL DRAWING: Orthographic projections, sections, intersection of surfaces, isometrical drawing, perspective, drawing of screws, bolts, nuts, spur-gears, bevel-gears, and other details of gun-carriages, engines and various naval machinery.	Thompson's Mahan's Industrial Drawing.* Tomkin's Machine Construction and Drawing.*
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* Reference book.

† Saturday morning period.

ASSIGNMENT OF TIME.

Departments.	Fourth class.		Third class.		Second class.		First class.	
	1st term.	2d term.	1st term.	2d term.	1st term.	2d term.	1st term.	2d term.
Astronomy, Navigation, and Surveying.....							6	5
Drawing.....			1	5½	2			
English Studies, History, and Law.....	5	5	5			2		
Ordnance and Gunnery.....							3	5½
Mathematics.....	6	5	5	5				
Mechanics and Applied Mathematics.....					5	5	3	
Modern Languages.....	5	5½	5					
Physics and Chemistry.....				5	5	5		
Seamanship, Naval Tactics, and Naval Construction.....							4	5
Steam Engineering.....					4	3½		

TABLE OF COEFFICIENTS.

Department and subject.	Fourth class.	Third class.	Second class.	First class.	Maxima for four years.	Maxima for final graduation.
<i>Astronomy, Navigation, and Surveying.</i>						
Astronomy, Surveying, Theory of Navigation, Practical Navigation, and Theory of Compass Deviation.....				20	80	48
<i>Drawing.</i>						
Mechanical Drawing.....		6	4		40	
<i>English Studies, History, and Law.</i>						
English and History.....	6					
English, History, and Law.....		6				
International Law.....			4		64	
<i>Mathematics.</i>						
Algebra and Geometry.....	6					
Trigonometry, Analytical Geometry, and Descriptive Geometry.....		12			72	
<i>Mechanics and Applied Mathematics.</i>						
Differential and Integral Calculus, and Mechanics.....			14			
Least Squares and Strength of Materials.....				5	76	
<i>Ordnance and Gunnery.</i>						
Ordnance Instructions, Infantry Tactics, Gunnery.....				8		
Theory and Practice of Gunnery.....				12	80	48
<i>Modern Languages.</i>						
French and Spanish.....	6					
French and Spanish.....		6			48	24
<i>Physics and Chemistry.</i>						
Chemistry.....		6				
Sound, Light, and Heat.....			7			
Electricity and Magnetism.....			7		80	
<i>Seamanship, Naval Tactics, and Naval Construction.</i>						
Ship Building.....				6		
Seamanship and Naval Tactics.....				18	96	60
Cruise Reports, Journals, and Testimonials.....						12
<i>Steam Engineering.</i>						
Steam Machinery, Marine Engines and Boilers.....			18			
Practical Instruction in Steam.....				2	80	48
Conduct.....	1	2	3	5	44	
Maxima for each class.....	76	152	228	304	760	240

Deductions for each demerit, 0.013, 0.032, 0.06, 0.133.

PROGRAMME OF RECITATIONS.

FIRST TERM.

Departments.	Fourth class.	Third class.	Second class.	First class.
Astronomy, Navigation, and Surveying	.	.	.	.
Drawing	.	S. (1)	.	M. T. W. Th. F. S. * (1).
English Studies, History, and Law	M. T. W. Th. F. (2)	M. T. W. Th. F. (3).	M. T. (3).	.
Ordnance and Gunnery	.	.	.	W. * (3), Th. F. (2).
Mathematics	M. T. W. Th. F. S. (1)	M. T. W. Th. F. (2).	.	M. T. W. (2).
Mechanics and Applied Mathematics	.	.	M. T. W. Th. F. (1)	.
Modern Languages	M. T. W. Th. F. (3)	M. T. W. Th. F. (1).	M. T. W. Th. F. (2)	$\frac{1}{2}$ Th. (3), W. (3), Oct. and Nov. $\frac{1}{2}$ Th. (3), S. (1), Dec. and Jan.
Physics and Chemistry	.	.	.	M. T. Th. F. (3).
Seamanship, Naval Tactics, and Naval Construction	.	.	.	.
Steam Engineering	.	.	W. Th. F. (3), S. (1).	.

SECOND TERM.

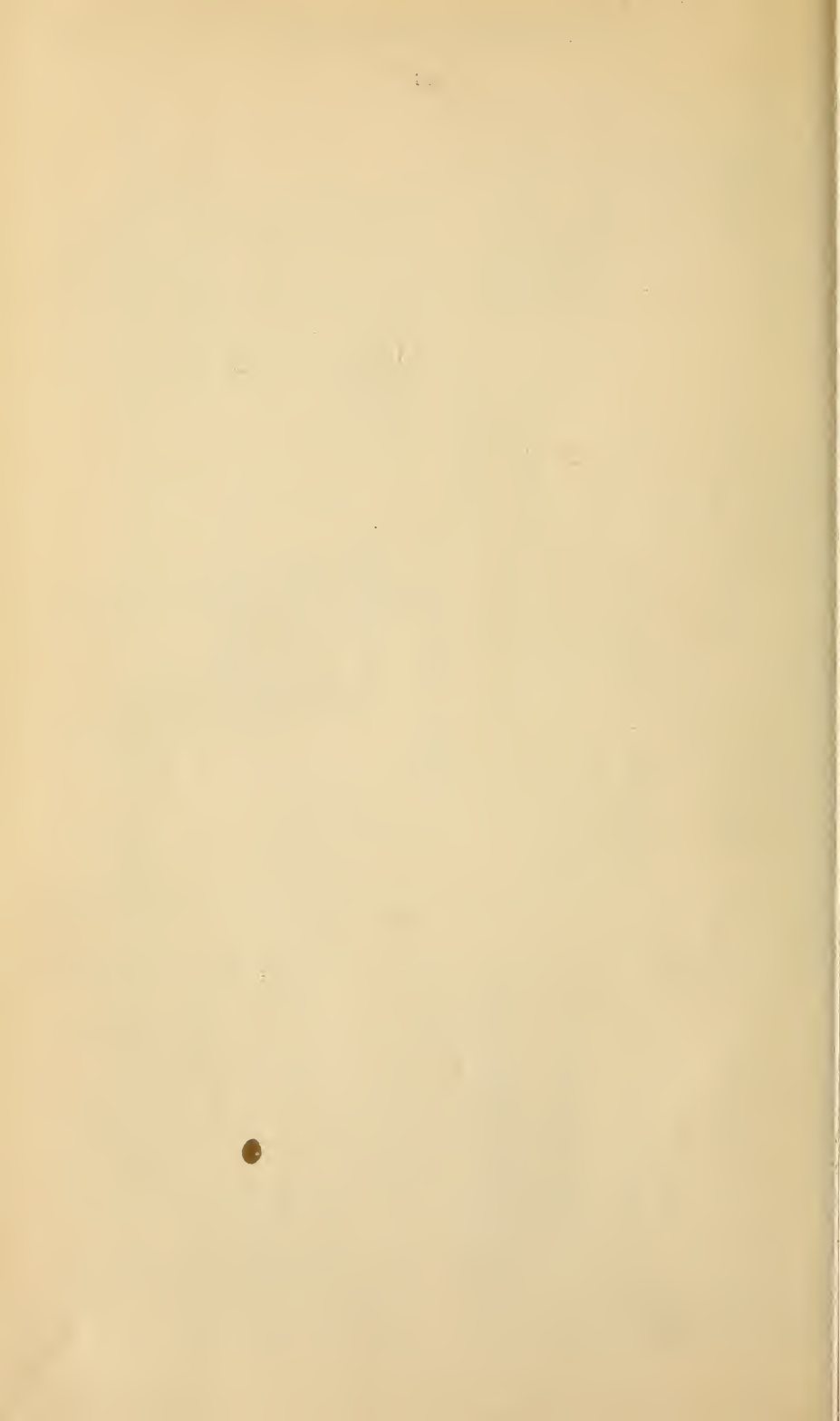
Astronomy, Navigation, and Surveying	.	.	.	M. T. W. Th. F. (1)
Drawing	.	M. T. W. Th. F. (3), S. (1)	F. (7.30 to 9.30 p. m.)||	.
English Studies, History, and Law	M. T. W. Th. F. (2)	.	M. T. (3).	.
Ordnance and Gunnery	.	.	.	M. T. W. Th. F. (2), S. (1).
Mathematics	M. T. W. Th. F. (1)	M. T. W. Th. F. (2).	.	.
Mechanics and Applied Mathematics	.	.	M. T. W. Th. F. (1).	.
Modern Languages	M. T. W. Th. F. (3), S. (1)	$\frac{1}{2}$ M. T. W. Th. F. (1) } $\frac{1}{2}$ F. (7.30 to 9.30 p. m.) }	M. T. W. Th. F. (2).	.
Physics and Chemistry	.	.	.	M. T. W. Th. F. (3).
Seamanship, Naval Tactics, and Naval Construction	.	.	W. Th. F. (3), S. (1).	F. (7.30 to 9.30 p. m.)||
Steam Engineering	.	.	.	.

† Temporary arrangement for study of Heat, first term 1883-84,

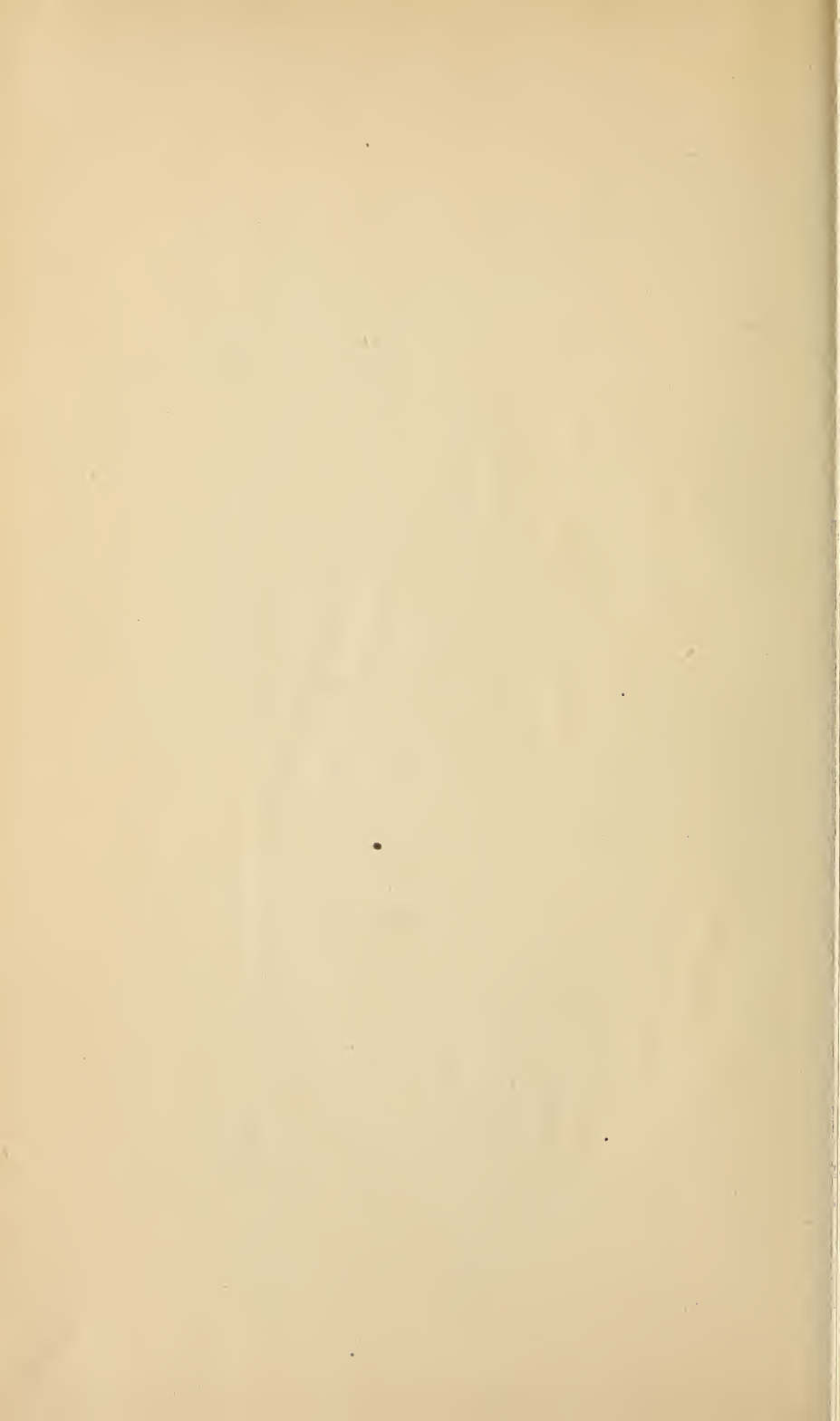
* Assigned to Department of Physics and Chemistry, December 1883 and January 1884.

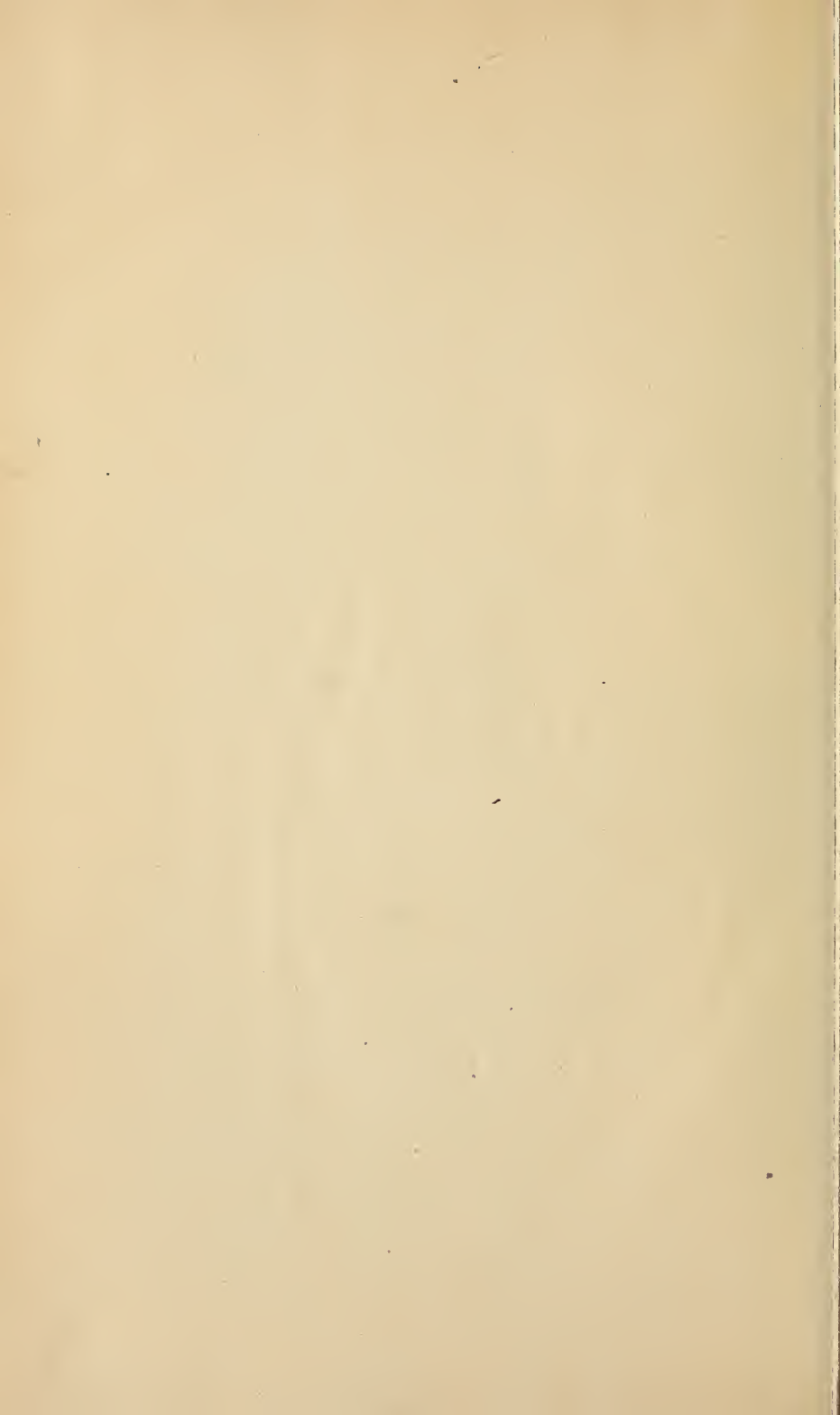
a Assigned to Department of Physics and Chemistry, October and November, 1883. c Assigned to Department of Physics and Chemistry, first term 1883-84.

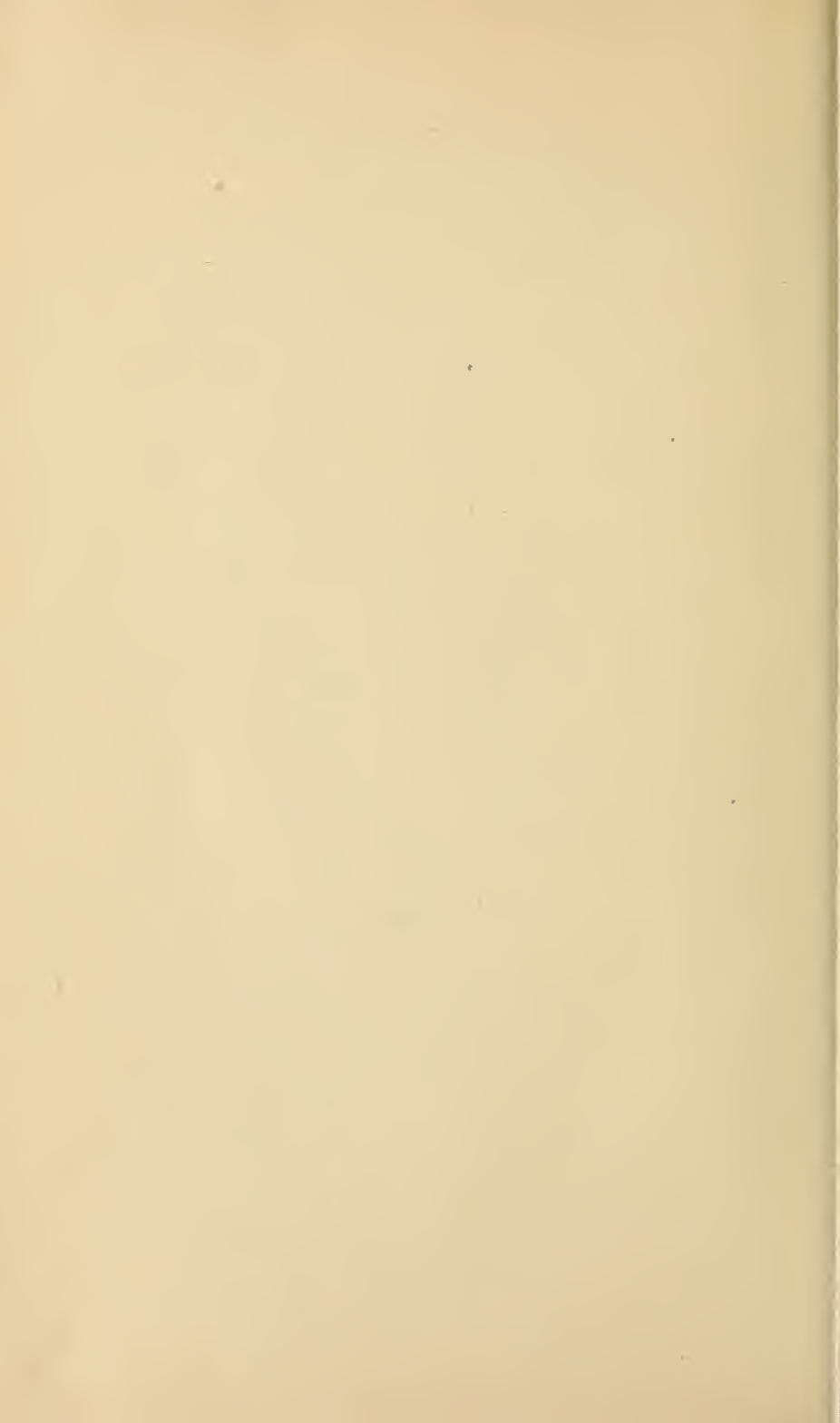
|| Lectures and practical instruction, March, April, May.

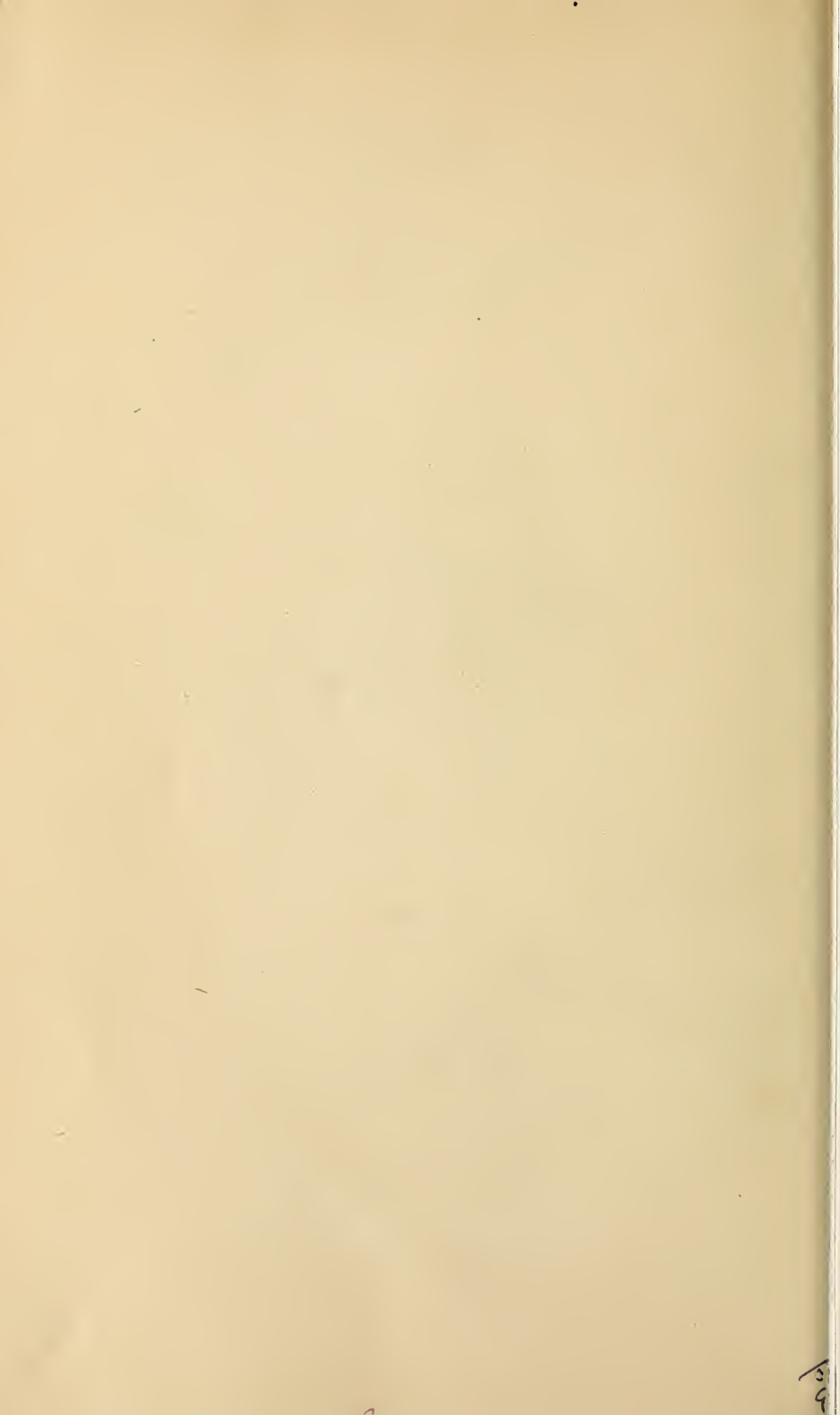


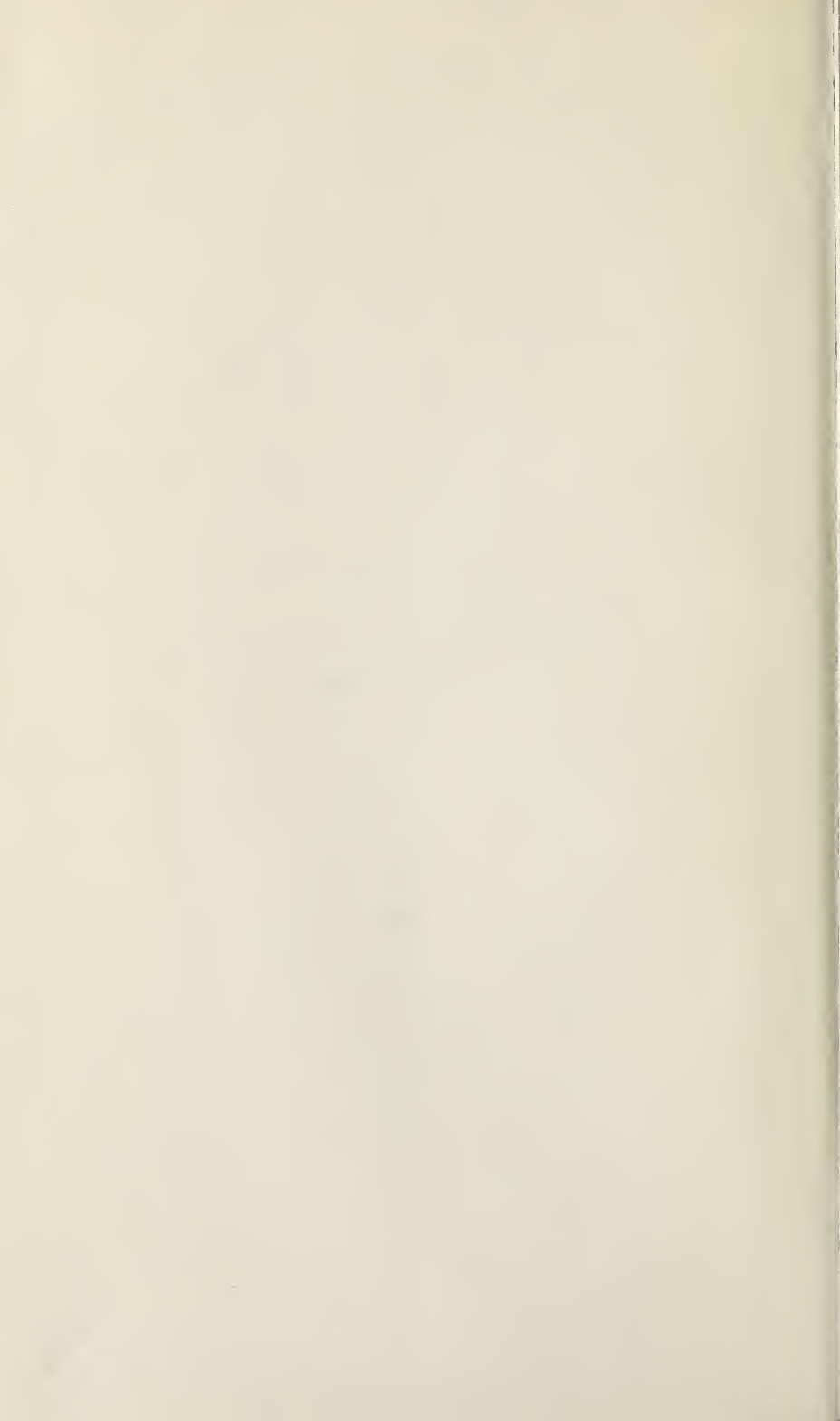












Annual register

1883-1884

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